VERITAS ET UTILITAS

WINTER 1954-55

IE BUSINESS QUARTERLY

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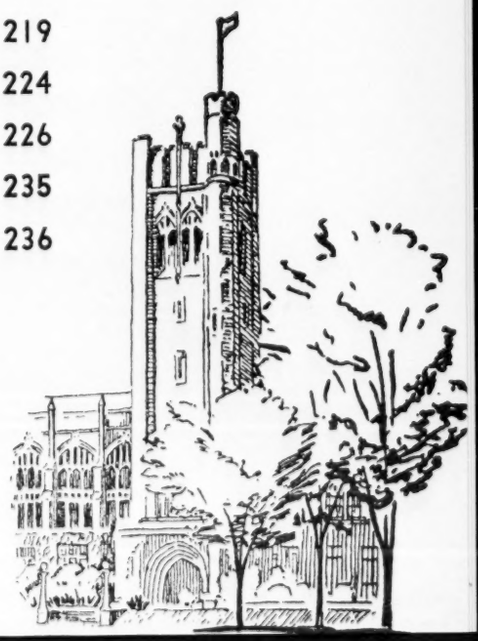

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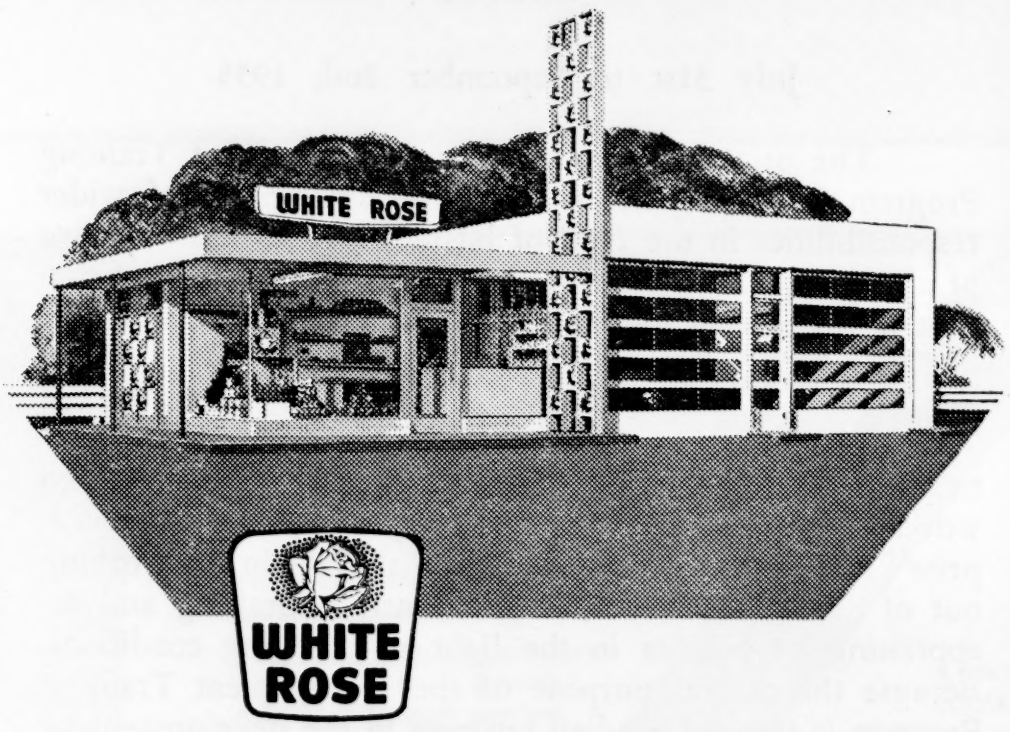

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THE BUSINESS QUARTERLY

VOLUME XIX
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1954-55

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Editorial . . .

This Winter Issue attempts to tell Canadian businessmen what they may expect in 1955. However dubious we may be about man's ability to look into the future — and certainly Professor Devons of Manchester in "Primitive Magic" and Professor Galbraith of Harvard in "The American Prospect" point out the pitfalls—there is no doubt that the plans individual businessmen are making for their own businesses in the months ahead are of vital importance if they can be discovered and aggregated. Such is precisely the object of the poll of executive opinion carried out by the Department of Research at the School of Business Administration, and, in our opinion, the results reported in "Concensus of Optimism" are of real significance.

It may, indeed, be of doubtful value to ask businessmen their opinion about the general economic prospect ahead. They feel constrained, particularly if going on record, to be optimistic. But, in contrast, about their own future plans they can be both definite and truthful, especially when they know that their individual forecasts will remain anonymous, lost in the aggregate and consequently cannot be exploited by business rivals.

But what businessmen are planning will come to nought without the cooperation both of labour and government. Consequently, labour's spokesman, Carrol Coburn of Solidarity House, Detroit, tells "What Labour Expects of Business in 1955"; and government's viewpoint is well defined for readers by Dr. Firestone. Dr. Kohr also highlights the many ways in which business can use government research to its own and the nation's profit.

Businessmen, looking further ahead than 1955 and anxious to build a united staff, will be interested in the reaction of university students to the interviewers sent to recruit them, and also in the higher level training planned in the new C.N.R. staff college.

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Letters to the Editor . . .

Your Coming of Age Issue

Dear Sir:

The twenty-first anniversary edition of The Business Quarterly is a nice piece of work!

In your editorial you mentioned its first editors and business managers. I am glad to say that I have up-to-date information on some of these.

Arthur Merifield obtained an advanced degree from Wayne University and a responsible position with the Treasury Department of the Ford Motor Company.

Hubert Owens is the manager of the U.S. Plywoods Limited, Mimico, Ont.

George Munro is a major in the Canadian Army and stationed in Winnipeg.

We are very glad to see that all these people have done so well. No doubt their early alliance with The Business Quarterly has some bearing on it!

F. W. P. Jones, Dean,
School of Business Administration.

. . . I wish to congratulate you and your staff for its neat presentation and the value of the interesting articles it contains . . .

Marius Laliberté,
Quebec City.

25 Favourites of the Investment Experts

I saw some statistics compiled by your school on common stock investments by life companies. I have had vast experience as a navigator on the reefs and shoals of Wall Street. To me statistics are enough to make a tadpole hug a whale! Show me a bastabooner who trades in stocks based upon statistics . . .

You should know, Mister Professor, that trading in the Big Blue Chips,

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Letters to the Editor . . .

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listed on the Big Board in New York City is a *sure thing* — if and when you savvy "the pattern" made by the stock price movements — always the same without fail. The only thing different with these patterns was the *time element.*

I never heard tell of any School of Business Administration which really taught a man how to trade as a real professional. I once asked a financial professor in the States how come. He said, "If I could trade like you do, I too would do it and keep my knowledge to myself".

Captain J. M. Berman,
Pictou, N.S.

About Our Authors . . .

Space prohibits adequate biographies of our distinguished Business Outlook Panel. Suffice it to say that its Chairman, **Norris R. Crump,** has risen from Machinist Apprentice at Field in 1920 to be Vice-President and Director of the Canadian Pacific Railway Company as well as director of innumerable other companies. **Kenneth Galbraith** found time between teaching at Harvard and Princeton, acting as Deputy Administrator of the Office of Price Administration in Washington and member of the Board of Editors of Fortune Magazine to write such nationally famous books as "American Capitalism" and "A Theory of Price Control". **Jack Firestone,** after graduating from McGill and studying at the London School of Economics, is now Economic Adviser to both the Department of Trade and Commerce and Central Mortgage and Housing in Ottawa and author of "Residential Real Estate in Canada". **Miss Frances Oxley** combined studies at the univer-

(Continued)

About Our Authors . . .

(Continued)

sities of Western Ontario, Indiana and Queens with service in the Royal Air Force to head the Department of Research at the School of Business Administration.

Carrol L. Coburn, graduate of U. of Toronto, is now a research associate for the Research and Engineering Department of the United Automobile Workers (CIO) and responsible for providing research service to the Canadian section of the union. He was formerly parliamentary secretary to E. B. Jolliffe, then Leader of the Opposition in the Ontario Legislature.

John R. Kohr added to his graduation in law and postdoctorate studies in philosophy at the University of Innsbruck years at the Sorbonne, Paris and Grenoble, France. During World War II he was mountain and winter warfare instructor in the U.S. Army and combat intelligence officer in the European Theatre of Operations. Of his job since his return from overseas 1946 with the Public Relations Branch, National Research Council of Canada, he says "It is an island of generalists set in a silver sea of specialists".

Neil M. Armstrong is already known to *Quarterly* readers. His article on "Personnel Recruiting on the Campus" appeared in the Fall 1953 issue. Mr. Armstrong is a graduate of the U.W.O. School of Business Administration, and is at present its Placement Officer. He is also Business Manager of the *Quarterly*.

After graduating from the University of British Columbia in Mechanical Engineering, **R. G. Chestnut** attended the U.W.O. School of Business Administration. In 1947 he joined the C.N.R. Department of Research and Development as a Junior Assistant Engineer. He is now Assistant to the Vice-President of the Research and Development Department.

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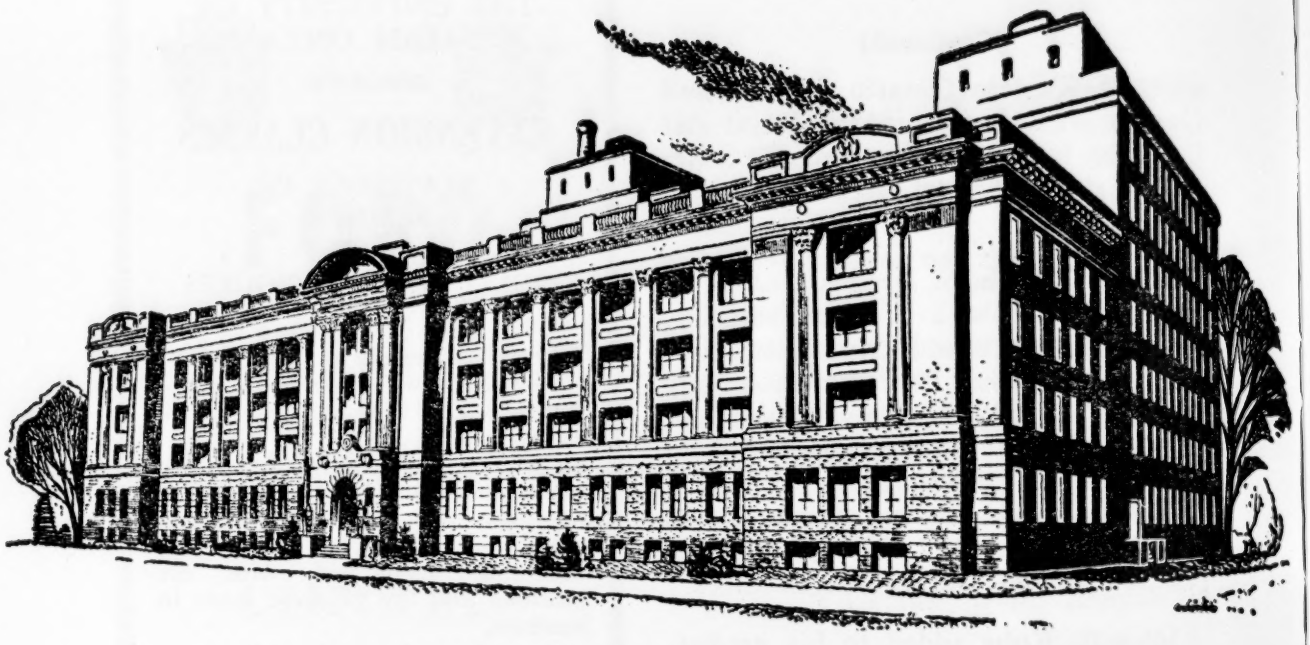

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What Business Expects in 1955

Norris R. Crump, Kenneth J. Galbraith,
O. J. Firestone, Frances Oxley

A panel of experts outlined what business expects of 1955 at the University of Western Ontario on October 22. Under the Chairmanship of Norris R. Crump, Vice-President and Director of Canadian Pacific Railways, Kenneth J. Galbraith, Professor of Economics at the Graduate School of Public Administration of Harvard dealt with the American prospect; Dr. O. J. Firestone, Economic Adviser to the Department of Trade and Commerce in Ottawa spoke on the strengths and weaknesses of the Canadian economy. In addition, the results were announced of the U.W.O. Poll of Canadian executive opinion on prospects in their own businesses and in the Canadian economy generally. The following are extracts from the speeches.

Chairman Norris R. Crump:

LIKE most Canadians, I have an abiding confidence in this country's long term prospects. In the short term, however, there are problems enough to perplex sorely most business men. The index of industrial production for the first seven months of 1954 stands about 3% below last year's level; average weekly earnings for August, the latest month for which figures are available, are nearly 3% higher than a year ago; weekly wages and salaries have risen to an average of $59.12 compared to $57.52 a year ago; cumulative labour income for the first seven months of this year was 120 million dollars more or 1.8% higher for the same period of 1953; the index for industrial employment for August is 3% lower than for the same months last year; carloadings on Canadian railroads for the first nine months of this year are 9.3% below last year's level; receipts from connections in the same period are off 13.7%; steel ingot output for the first eight months of 1954 is down 24.6% from the corresponding period of last year; motor vehicle production for first seven months is 20% below the corresponding period of 1953; farm cash income for the first six months of this year is down 7½%; Canadian exports are down 9%; Canadian imports are down 7½%. And so it goes.

It is always possible to become so optimistic about the far future that the pitfalls in the way of getting there may be overlooked. I venture to suggest what seem to be some of the pitfalls; higher wages,

declining employment opportunities, dwindling exports, fewer imports, less farm income, less business and less revenue for the federal government.

If competition has brought stability to the Canadian economy there is nothing to fear. Unfortunately, however, stability has failed to manifest itself in that all-important segment of the industrial economy known as the cost of production. We are still faced with higher wage costs at the very time that competition is keenest and sales are declining. Nor has there been any lessening in the cost burden imposed on businesses and industries through taxation. One can only conclude therefore that the stability that some assert is now manifesting itself on the Canadian business scene is not in fact stability at all but rather an unbalance between production costs and the sale of goods and services at home and abroad.

THE AMERICAN PROSPECT

Kenneth J. Galbraith

I AM not going to make any forecast. What I am going to do is to make some assumptions about the future. You must never be wrong in your forecasts. They will be held against you. But to select the wrong assumptions, is perfectly permissable.

Stock Report

The situation in which we now find ourselves is not greatly different on the two sides of the border. It is certainly something less than peak prosperity, although it is something a good deal better than an old fashioned depression.

The gross national product in the United States is now running at an annual rate around $356 billion, a drop of somewhere about $15 billions from the peak rate of $370 billion in the second quarter of 1953—not a large drop as such magnitudes go but still a sharp reversal of the previous growth tendencies.

Unemployment is running about 3¼ to 3½ million. The official figure for September, 3.1 million, is probably on the low side. Furthermore, as we move down from a period of full employment, we move not to any increase in the unemployment figure but rather to a reduction in double-time, overtime, extra hours, and we have been taking more of a slump in employment in terms of reduced hours and the elimination of overtime than is revealed in the aggregated figure. Still, an unemployment figure for the U.S. between 3 and 3½ billion is not something to get wildly excited about. I remember in 1944 or 1945 working out a model of the post-war economy in the United States and

being faced with the problem of deciding what the minimum unemployment could be. I eventually picked out 4 million and one of the large unions circulated this article with approval, knowing that 4 million was an admirably low figure. However, we have had unemployment in recent years very much below this and also comparative price stability.

The index of industrial production also reached its peak of 137 in the second quarter of 1953. This is our most sensitive index and it has been consistent at around 124 for the last several months.

Within this framework of not very good and not very bad there has been a great variation in the behaviour of different industrial series. Disposable income available for spending has not fallen at all. There have been a number of factors associated with this; one has been some well-timed tax reductions, another has been some wage increases. Construction, the most mercurial of all industrial indices, is also very high. In the thirties this was one of the first indices to fall and fall most severely. Industrial investment generally is very good. And, finally, intentions to invest are still strong. They show signs of tapering off in the recent McGraw-Hill survey but the slump has not yet caused businessmen to revise their intentions as regards capital investment.

On the unfavourable side we have any number of unhappy situations. I am impressed how often one can cross the frontier at Niagara and continue the same conversation in economic terms. I can keep right on talking about the textile business for example. Our textile producers are very unhappy. I gather they are not the most joyful group here in Canada. The steel industry has been behaving very badly, producing at only about 62% of capacity all through the summer. However, the steel rate was up last week around 74%. That is a good deal better and if it keeps on going up this will relieve one's mind of one of the most troublesome situations. Parts of the automobile industry are in a difficult situation. General Motors and Ford have been producing at record levels but Chrysler and the independents have been having a very rocky time. In towns like South-Bend, Indiana, Studebaker's headquarters, employment is dependent on an independent and the situation is far from agreeable.

The Future

We have had a great many predictions this past year. Almost all of them have been for an early upturn. In January, President Eisenhower said that unemployment was levelling off at around 2½ million —a million less than the figure reached later; in June Chairman Burns of the Council of Economic Advisors said there was an upturn coming "very soon"; and in July or August Secretary of Commerce Weeks said that unemployment had been decisively reversed.

Churchill once laid down a good rule; when at home, anybody talking about his government should never stop criticizing it and never criticize it at all when away. I am not going to be critical of the Administration for their statements. I doubt if they were the very best political wisdom. I doubt however, whether we should take them very seriously. Nor do I think we should take most of the record statements and business predictions on the outlook too seriously. This is an area where there is a great belief in witchcraft. There is a conviction that the future will not be what you make it but what you say it will be. And it is necessary for every politician and nearly every businessman once a month to make a sort of optimistic pilgrimage and render his sacrifices to the gods—say everything is going to be wonderful, say that confidence is returning, that business is turning up, that we are about to head into better and yet better days. These are not really forecasts. They are incantations, a homage paid to the gods in the hope that they will do some good, that they will in fact make business turn up. So I think that we should discard most such statements, including most of the statements that come from the business administration now in Washington. These are statements of official faith rather than forecast.

One of the things that has caused the continuing weakness in the economy has been inventory liquidation. We have been liquidating business inventory in the States at the rate of around 4 billion dollars a year in each of all recent quarters. This is a very, very rapid rate of liquidation. And some time or other it is tempting to believe this inventory liquidation will come to an end, that inventories will come back to something like normal and buying will resume. And this I am sure is what the Administration and Chairman Burns of the Council have been counting on. That seems the single substantial basis for the view that an upturn is more or less inevitable.

What is the case for assuming that there will be a more serious slump? It has happened before; it happened after 1929; history can always repeat itself; in 1929 the economy started tapering off in midsummer and the stock market continued to have a fine growth for several months. One can draw parallels. Yet I find it difficult to feel that the parallels are convincing. For one thing there has been no wild speculation of the same magnitude as occurred prior to 1929. For another thing the economies of both of our countries, of all western countries, have developed a good deal more resistance to the shock effect of a crash than they had then. There is the banking situation for example. The banks of the States were terribly vulnerable in the early 30's. Through deposit insurance and better banking laws they are relatively invulnerable now. Social security and the farm programme provide a very important cushion to declining income. Farm income in the last two years has been very substantially cushioned in

the United States by the support prices. These are the so-called built-in stabilizers. The tax programme also works on the side of stability both because of the cushioning effect of the progressive income tax and because an aggressive fiscal policy can support spending by tax reductions, a policy to which the government, both parties, are pretty well committed.

What then is a plausible assumption? When the American economy is well launched on a given form of behaviour it tends to persist in it. This is the lesson of the last twenty years. The unemployment, the stagnation of the 30's lasted a long, long while; it lasted ten years; and it was only the shock effect of World War II that took us out of it. The full employment and crypto-inflation of the 40's and early 50's lasted a long while. It confounded a good many of my professional colleagues who just did not think it was Christian for prosperity to last as long as it did—this tendency, for a given form of behaviour to persist. Instead of the rhythmic cycle we were all taught in school, we tended to have plateaus.

Conclusion

If we are well launched at the moment on a plateau of rather high level stagnation, then, in the absence of anything being done about it, I think that it is a plausible assumption that it might last. Chairman Burns' inventory cycle provides a plausible argument that it might end in an upturn. But on the other hand we might well have rather irregular inventory replacement, inventories being built up here and run down there. We might also have some revision of long run investment expectations or some slump in residential housing now getting overbuilt in some areas. All these would hold us on this plateau, this plateau of less than good but better than bad.

One thing that could bring this to an end would be aggressive government policy—an aggressive determination to do something; to cut taxes, to increase government expenditure, a strong effort to bring an expansionist or inflationary fiscal policy to bear on this stagnation. If that were done it might well start the ball rolling again, it might well bring us to a point where we again risked some inflation. I would not myself rule this out nor, if I were forced to make a policy decision, am I sure that I would be against it. I don't think there is any great suffering or any great hardship in the present situation. I am a little disturbed however, over the notion of stability or stagnation, a little disturbed about it in a world where our sort of economic society is matching its strength against other forms and where both our countries are probably obliged, for purely competitive reasons, to turn in a good behaviour report.

THE CANADIAN ECONOMY

O. J. Firestone

THERE are two ways in which business can look at 1955. One is to marshall all the bits and pieces of information that indicate the sales, costs and profit prospects and related matters of interest to business executives. The other is to examine some of the basic economic forces and problems that will influence the course of the Canadian economy over the next several years. After taking this latter approach, I shall, in my concluding comments, bring out a few of the implications for the near-term economic outlook.

Let us first take stock where the Canadian economy stands today. Over the last ten years we have heard a good deal about Canada being a booming country, a nation with the hardest currency in the world, and a land of milk and honey. Amid all this praise and general optimism, the fact that we also have many economic problems and some weaknesses in our economic armour has not received the same public attention.

In 1954 our attention has, however, again been drawn to the fact that a northern economy like Canada, dependent as much as it is on favourable weather conditions, cannot be relied upon to produce record crops every year. The law of averages was bound to catch up with us, as it did this year. Rains, frost, hail, wind, insects, rust and other blight all took a serious toll of this year's crop. As a result the 1954 wheat crop may turn out to be the smallest in the post-war period in quantity and the poorest in quality. Smaller crops this year are also indicated for oats, barley, rye and potatoes.

Further, the Canadian economy being heavily dependent on foreign trade cannot help but be affected significantly by declining markets abroad, particularly in the United States. Add to this the growing competition which Canadian fabricating industries, in particular, had to face from foreign imports and the year 1954 provides an object lesson on why a free enterprise economy depending heavily on favourable weather and export trade — the latter are two factors over which Canadians with the best of intentions have no control — cannot be expected to top each year the preceding year's economic record.

Visitors to Canada on learning of our crop failure, decline in exports and rise in unemployment, might readily conclude that Canada is in the midst of a serious recession. Well, fortunately there are many elements of basic strength that have remained in evidence during the year: a continuation of our resources development programme, a record volume of residential and commercial construction, a high volume of consumer spending, and little change in government outlay. As a result, our gross national product, excluding the agricultural sector, during the first half

of the year was running at about last year's record levels. In the third quarter we may even have been a little ahead.

The economic record of 1954 points more clearly than in other post-war years to some of the strength as well as some of the weaknesses of the Canadian economy: 11 per cent of our national income is earned in agriculture; 23 per cent of our gross national product consists of Canadian exports. Hence, a poor crop coupled with an overall decline in our sales abroad cannot help but affect the Canadian economy more adversely than that of almost any other industrialized society. But these are basic weaknesses that have been with us all along. Perhaps we have learned to live with them. They arise out of our climatic conditions and the structure of our industries which in turn is greatly influenced by the availability and type of our natural resources and our ability to develop these on a world competitive basis.

Three Current Economic Problems

What are some of the economic problems arising from this strength and weakness in our economy? Most of our economic problems are not just questions of black or white. Instead they are questions of what shades of grey, the lighter or the darker kind.

Some of our current economic problems are said to arise: (1) out of the inability of some of our manufacturing industries to compete against foreign imports, necessitating lay-offs in Canada; this has led to demands for increased protection; (2) out of our too great dependence on the U.S. market, making Canada subject to the at times substantial fluctuations of the American economy; this has led to complaints about "too many of our eggs being put into one basket"; and (3) out of our dependence on a basically free enterprise economy with its problems of industrial adjustment, unemployment and business losses; this has led to demands for the government to take up the slack whenever and wherever it occurred.

Other generations before us faced these three problems, and I believe the next generation will face them also. The manner in which we handle them will have some effect on the kind of economic situation we are facing. But the point to remember is that these problems are always with us. No simple and clear-cut solutions appear to be in sight.

1. Higher Tariffs?

Some of our manufacturing industries, for example, our electrical equipment and textile industries, have found it necessary to curtail operations in 1954 and to lay off men. The reason given was not so much declining markets — though this was the case in some instances — but the inability of these industries to compete against lower-priced foreign imports. Is the solution to this problem to be found in providing increased protection for these countries?

About half of our national income is earned in so-called commodity-producing industries, i.e., our resources industries, our advanced manufacturing industries, and the construction industry. The other half of our national income is earned in service industries, by people working in the utility industries, in trade, financial and general service operations, or employed by governments. If resources industries are defined broadly to include not only the extraction and growing, but the processing as well, of agricultural, fish, mineral and forest products, then these industries are responsible for close to two-thirds of the national income earned in the commodity-producing sector. Hence you can divide our national income, speaking very roughly, into three parts: one-third is earned in the resources industries, one-sixth in the advanced manufacturing and construction industries, and one-half in the service industries.

Our service industries and our construction industry are largely domestic in character. They face comparatively little foreign competition, mainly because of the regional or local character of their service or product. Hence in relation to foreign trade, our concern is primarily with the resources and fabricating industries.

Canada's resources industries are among the most efficient in the world. Mainly because of the high quality of our resources, we can sell them at competitive prices in most foreign markets. The businessmen who develop these resources usually earn pretty good profits, and workers employed in these industries draw fairly high wages. Thus our resources industries set a profit and wage pattern for Canada that has contributed greatly to the high standard of living which Canadians enjoy, and that has provided an incentive for businessmen to take the risks entailed in developing our resources.

Canada's service and construction industries have been able to meet the wage and profit standards set by the resources industries, and have been, by and large, fairly successful in their operations. The reasons are the national scale of operations in some sectors, e.g., department and chain stores and financial institutions, and the monopolistic or semi-monopolistic position of some other sectors, e.g., Canada's utility industries. In still other cases locational advantages have been the deciding factor, e.g., in the construction and general service business. Hence you have about five-sixths of the Canadian economy in which the general claim that we have a high-cost economy simply does not apply. Canada's resources, construction and service industries appear, under normal circumstances, to be able to afford the high wages and profits they pay. In fact, but for the ability of these industries to offer such high rewards to their workers, Canadians would not have the high standard of living they now enjoy.

Our resources industries, which set the wage and profit pattern for other industries in Canada, are also our most efficient industries. If they

were not as efficient as they are, would Canada be the world's leading exporter of newsprint, wheat, nickel and aluminum? Now what happens to our fabricating industries when they are faced with the necessity of paying wages and of offering profit opportunities similar to those provided by our resources, construction and service industries? Some of our advanced manufacturing industries have the advantages of large-scale operation, e.g., our farm implement and fertilizer industries. These manufacturing industries are among the most efficient and are well able to hold their own against foreign competition. In fact, they are able to compete successfully in a number of markets abroad. There are, however, some other manufacturing industries which do not have the advantage of catering to a mass market. Hence the smaller scale on which these industries operate prevents them from producing as efficiently as, for example, some of their American competitors notwithstanding the fact that the latter may be paying higher wages and making greater profits than their Canadian counterparts. Nor have these Canadian manufacturing firms the advantage of lower wage costs than similar firms may have in the United Kingdom, Western Germany or Japan.

Given the present tariff structure, a number of Canadian fabricating firms are well able to hold their own in the domestic market against foreign competition by concentrating on the production of the articles they can turn out most efficiently. Some of our industries, however, are unable to do so and it is from these ranks that the demand for increased protection comes. In the present stage of Canadian economic development and technological advance, these industries are responsible for perhaps 5 to 10 per cent of Canada's national income. (Precise measurement does not appear feasible because the competitive position of various domestic industries in the Canadian market vis-a-vis foreign producers changes from time to time.)

Some people suggest that the manufacturing industries which cannot meet fair foreign competition are inefficient and therefore do not deserve any sympathy. Given the basic economic facts of Canadian life, I personally cannot agree with this oversimplified conclusion. For the operations of these industries are circumscribed by the size of a market which prevents them from reaping all the advantages of mass production. The costs of production of these companies is determined largely by the wage and profit pattern set by our resources industries and followed by our construction and service industries.

It is not for me to express a view whether Canadian industry should be given additional protection or not. Some argue that further protection of Canadian industry would hamper the expansion of our export industries, which are among Canada's most efficient industries, and which are making dollar for dollar the greatest contribution to increasing our national wealth and in one way or another that of every individual

Canadian. The reason why our export industries would be affected is simply that our customers would be earning fewer Canadian dollars from selling to us. And if they sell less to us, what alternatives have they got but buying less from us? There is also the added point that Canadian consumers would have to pay higher prices for many commodities which could be imported at lower prices from abroad. We would also have to take into account Canada's international trade obligations, and our strategy in trade negotiations with our customers and suppliers.

On the other hand, a case can also be made for encouraging further industrial development through added protection. Advanced manufacturing in Canada means greater use of many of the raw materials produced in our own country. It also means added employment and income opportunities in such industries. The chief objective of government trade policies is to work with other like-minded nations towards a gradual freeing of trade barriers and to increasing the flow of international commerce. While this is its broad policy, the government is always willing to look at specific cases of individual tariff items when industry feels that it suffers hardships, as witness the number of hearings before the Canadian Tariff Board. Thus, in conclusion, there does not seem to be any easy and clear-cut solution to the problem of foreign competition in our domestic market in sight, and this problem is likely to affect the economic outlook in Canada for years to come.

2. Less Dependence on the United States?

Is a great weakness in our current economic position "our too heavy dependence on the United States"? We are now selling relatively more to the United States than we used to. In 1929, 44 per cent of our commodity exports went to the United States. In 1953 the proportion was 59 per cent. But much less attention is being paid to two corollary developments:

(1) We are now also buying relatively more from the United States than formerly. Canada's imports from the U.S. amounted to 73 per cent of total imports in 1953, as against 69 per cent in 1929. Given the present international situation, how else could Canadians pay for increasing imports from the United States but by increasing our exports to them? In our trade negotiations with the Americans, Canadians have persistently made the point that they are not selling enough to the United States. (Canada's commodity trade deficit in 1953 with the U.S. was $758 million.)

(2) The Canadian domestic market has grown more rapidly than our markets in the U.S. Between 1929 and 1953 real gross national product rose by 127 per cent, or at an annual rate of 3.5 per cent (compound). Canadian commodity exports increased in volume terms by 95 per cent over the period as a whole, equivalent to an annual aver-

age rate of increase of 2.8 per cent (compound). This means: It is true we are putting more eggs into one basket — only the basket is Canada and not the United States.

The fact remains, however, that the largest proportion of our trade is with our neighbour to the south. Remembering the experiences in the 'thirties, some people are worried about what substantial economic fluctuations in the United States may do to the Canadian economy. Every time Uncle Sam sneezes are not we in Canada, together with our friends in Western Europe, likely to catch a cold? The evidence of the last decade suggests that this diagnosis deserves re-examination.

What happened during the last two recessions the United States experienced, one in 1948-49 and the other in 1953-54? In the first, Canada continued on her path of economic expansion. In the more recent, declines in economic activity in Canada were of much more moderate proportions than in the United States. Let me give you a few quantitative illustrations:

	PERCENTAGE CHANGE			
	4th Quarter 1949 compared with 4th Quarter 1948		2nd Quarter 1954 compared with 2nd Quarter 1953	
	U.S.	Canada	U.S.	Canada
Gross National Product(1)	—4.2	+3.0	—3.8	—0.7
Gross National Product (excluding agriculture)(1)	—0.2	+2.8	—3.9	—0.5
Gross Domestic Investment (excluding inventory change)(1)	—5.2	+0.4	—2.2	—3.0
Commodity Exports	—19.4	—5.0	—6.6	—10.3
Consumer Expenditures(1)	+1.4	+6.7	+1.0	+3.6
Government Expenditures(1)	+7.4	+16.5	—9.6	—2.8
National Security Expenditures(1)	(2)	(2)	—17.7	—9.0
Index of Industrial Production	—7.3	+0.3	—9.4	—3.4
Population(3)	+1.7	+2.2	+1.7	+2.8

(1) Seasonally adjusted annual rates. (2) Not available. (3) As of June 1.

Why have Canadians been spared a good many of the effects of the last two U.S. recessions? This happy experience was also shared by a number of European countries in the more recent period. In the case of Canada our more rapid growth of population and of the domestic market, as well as a continuation of our resources development, had a good deal to do with it. As far as Western Europe is concerned, these countries have finally reached a stage of economic recovery — from the distress of the thirties and the ravages of World War II — which has enabled them to take in their stride minor downward adjustments in North America. Undoubtedly, if the United States at some future date were to have a really serious recession or go down hill to a full-scale depression, Canada and the rest of the world would feel the impact quite severely. But the economies of other countries are developing some basic strength of their own and that makes them somewhat more independent of economic events in the United States than they are generally given credit for.

The implication for the near-term economic outlook is: If the economic situation in the United States improves, as most Americans seem to think it will, Canada's export trade with that country should benefit. If, on the other hand, the economic situation in the United States continues on its present course of showing little improvement for another year, the Canadian economy may not be seriously affected as long as most of our overseas customers continue to do fairly well, as they appear to be doing at present, and as long as overall domestic demand continues reasonably firm.

3. More Government Aid to Business?

When faced with economic adjustments some Canadian industries, trade unions, and municipalities clamour for the government to step in and do something. One example of the type of government action asked for by some industries is increased protection. Other demands have ranged all the way from extending social security coverage to initiating a broad programme of public works, from awarding defence contracts to non-competitive industries to paying subsidies to keep declining industries from closing down, from reducing the flow of immigrants into Canada to prohibiting exports of certain industrial raw materials.

Obviously, if all or most of these demands for government action had been heeded, the Canadian economy would have been transformed into one very different from the free enterprise society it is now. If the Canadian economy is to maintain its basically private enterprise character, if market forces rather than government controls are to be the deciding factors in the production and distribution of goods and services and the use of the resources of the country, are there not some adjustments possibly painful, that are almost unavoidable?

In a private enterprise economy, profits are a prerequisite to the successful functioning of the incentive system. There should be no need for businessmen to feel apologetic if they make profits. But in a competitive society businessmen must on occasion expect losses. Nobody likes losing money in business but at times the threat of a loss or the realization of a modest loss may be essential for long-term growth. It is a warning signal that the firm is not doing so well; its represents an incentive to improve efficiency, to eliminate non-essential expenditures, to develop new products, to find additional markets; in other words, to do all the things that a free enterprise economy has the right to expect from efficient management.

This is a basic principle recognized in Canadian income tax laws. Section 27(1)(e) of the Income Tax Act, 1948 (as amended) gives businessmen the right to carry backward losses for one year or charge them against profits in the following five years.

—To Solve Labour Problems?

The situation is somewhat analogous in the case of men finding and losing jobs. If every man had a secure job from the time he started working until he retired, the opportunities for personal advancement and for individual betterment would be considerably less than they now are. Even more important, it would prevent the nation from making the best possible use of its manpower resources, and Canadians would have to be content with lower productivity and a more modest standard of living than they now enjoy. In reality there is a premium on mobility in Canada. The reasons are quite simple. The rate of economic development varies from region to region and with it the opportunities to find better paying jobs. If the Canadian economy is to continue to increase its productive capacity as rapidly as it has in the past, it is desirable that our labour force can move from one job to another when the opportunities present themselves. In most cases this may take the form of moving from one firm to another firm in the same locality. At times it may mean moving from one industry in one locality to the same industry in another locality. In still other cases, particularly where people are employed in declining industries, it may involve willingness on the part of the worker to take a job in a different industry. Labour mobility sometimes requires quite a significant adjustment on the part of those affected, and in making a case for it there is need for a sympathetic consideration of the human problems involved.

There are other types of unemployment, such as those occurring by reason of seasonal lay-offs, lack of demand, sickness of the worker, etc. They are all part and parcel of the hazards attached to human life itself and of the way in which a free enterprise economy operates. Unemployment insurance and assistance in re-training and in moving workers are some of the measures used to cope with such problems of temporary lay-offs if and when they occur.

—To Solve Regional Problems?

Then there is the economic adjustment that regions and localities undergo from time to time. Some cities expand rapidly. Other communities may be contracting in size and losing population. Some people seem to think that the problem of such declining areas can be solved by public works. If such projects are of the "leaf raking" variety, they contribute very little to the development of the community. But even if they are of a constructive type, they might only postpone for a short while the ultimate adjustment if the latter is necessary for economic reasons. This is not an argument against public works. It is rather a suggestion that public works can help a basically healthly area to overcome temporary problems of economic adjustment. They can further strengthen, improve and expand the public facilities a growing area

needs. But public works can do little—except in very special circumstances—to transform an economically unsound area into a vigorously growing community.

Answering the question whether the government should take action to provide special assistance to each industry or individual firm every time it loses business, to guarantee a new job every time a man loses his job, and to come to the aid of a municipality every time it gets into trouble, or whether it should take only general action to facilitate the continuing growth of the Canadian economy, including ample employment opportunities in the country as a whole and sufficient total demand to enable the majority of business firms, farmers and fishermen in Canada to operate successfully, the Minister of Trade and Commerce, Mr. Howe, told the Toronto Canadian Club in April: "The Government (makes) every effort to create by all its policies favourable conditions within which the initiative, experience and resourcefulness of private business can contribute to the expansion of business and employment . . . This attitude (permeates) all aspects of government policy, including taxation, monetary policy and credit policy . . . The object (is) to promote continuing expansion and to discourage inflation . . . The time may come when there has to be greater emphasis on supplementary measures to maintain employment and incomes. We must ensure that these supplementary measures, if they do become necessary, support and do not interfere with the attainment of a highly productive, low-cost, efficient economy."

What is the 1955 Economic Outlook for Canada?

Factors of strength in the Canadian economy that are likely to influence the pattern of next year include:

1. Continuation of population growth, currently close to 3 per cent per annum, and with it increased opportunities to do business in an expanding domestic market.
2. Continuation of resources development and the housing programme at a high level.
3. Improved prospects for export trade—to the United States if that country resumes its path to further economic expansion, as has been suggested; to countries overseas as their economic and exchange situation continues to improve.
4. Increases in productivity which strengthen the competitive position of Canadian industry and make it possible for Canadians to earn higher profits and higher wages.

Factors of weakness in the Canadian economy that are likely to affect the level of activity in 1955 include:

1. Declining farm incomes because of the particularly poor crop of 1954 are likely to reduce the purchasing power of the important agricultural sector of the Canadian economy.

2. Foreign competition is likely to continue to cause difficulties for some of our advanced manufacturing industries.
3. The ratio of unemployed to the total labour force is likely to remain higher than what we have been accustomed to during most years in the post-war period. While some of the income losses of those laid off will be offset by receipts of unemployment insurance benefits, the buying power of those affected would be reduced.
4. Uncertainty about the economic outlook is likely to result in the continuation of the present attitude of caution both on the part of businessmen and the general public. While most Canadians are probably reasonably optimistic about the economic outlook for 1955, that optimism could well be dampened if the U.S. economy continues to move "sideways" instead of "forwards" and if U.S. economic and trade policies lose some of their leadership qualities and become more protectionist.

I personally continue to be confident in the ability of the Canadian economy to take adjustments in its stride. I think that the business prospects for the next year are pretty fair, because I believe in the basic soundness of the Canadian economy.

A CONCENSUS OF OPTIMISM

Frances Oxley

NEARLY 200 top Canadian executives contributed to the fifth poll of Canadian Executive Opinion. This poll, like its predecessors, was designed to uncover Canadian business executives' views about the future of their own business and general business activity in Canada. An analysis of the sample shows that opinons were received from a good representation of executives in nearly all types of industry across the whole of Canada and that these leaders expressed little pessimism and a fair amount of optimism about the future.

Poll Sample

Which firms were asked their opinions? Where were they located? A size and industry breakdown of the sample shows that 60% of the firms were large[1] and also that an equal percentage of the total replies came from manufacturing firms. Therefore, both large firms *and* manufacturing firms predominate in the sample. In addition, the figures show that 82.3% of the replies came from firms located in Ontario and Quebec.

[1]It is necessary to point out that the measurement used to identify the firms according to size was a highly subjective one. The executives were asked to indicate which size category fitted their firm.

A comparison of the geographic proportions for manufacturing (in the table below) and those published by the Dominion Bureau of Statistics for 1951 indicates that the sample is more heavily weighted by manufacturing firms located in Ontario and Quebec (88.3%) than it should be according to the DBS 1951 census (67.2%). It should, however, be pointed out that over 30% of the non-manufacturing firms polled were situated elsewhere in Canada.

	Total	*Percent*
Number of Replies	164	100
Manufacturing	111	67.7
Non-Manufacturing	53	32.3

Industry	*Total*	*Large Firms*	*Medium & Small Firms*	*Ont. & Que. Firms*	*Other Provinces*
All industries	100%	60.4%	39.6%	82.3%	17.7%
Manufacturing	100%	59.4%	40.6%	88.3%	11.7%
Non-manufacturing	100%	62.3%	37.7%	69.7%	30.3%

Results of the Poll

The questionnaire sent out to the executives covered two major aspects of business and economic activity. They were asked their opinions concerning first, the future trend of general business activity, and second, the future trends within their own firms.

As in the "Fortune" poll of U.S. executive opinion, Canadian executives proved to be more optimistic about the future within their own firms than they were about the future general business and economic activity. For example, approximatley 60% expected industrial employment and production in the economy to remain stable while only 16% (approx.) expected them to increase. On the other hand, a larger proportion of the respondents anticipated increases in some aspects of the activity of their individual firms. With reference to expected volume of production and expected sales, between 50% and 55% predicted an increase while only 34% predicted stability. Anticipated changes in the size of the individual firms' labour force, interestingly enough, coincided almost exactly with the expectations expressed concerning total industrial employment in the economy with approximately 60% in both answers predicting stability. However, opinions as to possible increases and decreases again showed somewhat more optimism when executives were considering their own firm's future activity than when they were considering activity in general. Whereas 20% expected industrial employment in the economy to decrease and only 15% expected it to increase, in the individual firm question only 11.5% predicted a decrease while 22.6% predicted an increase. The complete results for these questions are as follows.

	Industrial Production	*Industrial Employment*
Increase	17.1%	55.4%
Continue at 1954 level	61.6%	33.5%
Decrease	20.1%	7.9%
Don't know	1.2%	1.3%
Omitted	0.0%	3.6%

	Firms' Volume of Production	*Firms' Labour Force (Average)*
Increase	15.2%	22.6%
Continue at 1954 level	62.8%	59.7%
Decrease	20.8%	11.5%
Don't know	.6%	.9%
Omitted	.6%	4.2%

Sales of Individual Firms

Increase	48.1%
Continue at 1954 level	35.3%
Decrease	11.5%
Don't know	1.3%
Omitted	3.6%

Inventories

An explanation of the divergence between the relative optimism about increased production and sales and that about future employment might lie in the answers given to the question relating to production for inventory. However, it is dangerous to place too much emphasis upon answers to this question because a large percentage (16.8%) of the respondents (mostly non-manufacturing) failed to complete it, feeling that it was not applicable to their type of operations. For what it is worth, it can be noted that a fairly large proportion (21.3%) of the respondents expressed an expectation of a decrease in production for inventory while only 46.3% predicted a continuation of the present level. The explanation above is substantiated to some degree by the results of the question dealing with the expected orders for raw materials. With a similar percentage omitting the question, 34.7% expected orders to increase while 34.7% expected them to be about the same as in 1954. Only 10.3% predicted a decrease. The results of these two questions are tabulated below.

	Production for Inventory	*Orders for Raw Materials*
Increase	9.2%	34.7%
Continue at 1954 level	46.3%	34.7%
Decrease	21.3%	10.3%
Don't know	6.3%	3.3%
Omitted	16.8%	16.8%

Prices and Wages

There was a notable degree of agreement between the predictions of consumer prices in general and prices of the products of individual

firms. The same agreement appeared in connection with the expectations concerning wage and salary trends. Over 66% of the executives in individual firms expected that the prices of their products would remain stable while 68.2% expected the consumer price index to remain stable. Expectations of increases or decreases in both these areas were rather evenly split and approximated 15% in each. As to average wages in the individual firms and average weekly wages and salaries in the industrial economy approximately 50% of the executives stated that they thought these factors would remain stable and approximately 50% thought they would increase. These results are presented below.

	Consumer Price Index	*Prices of Products of Individual Firms*
Increase	15.2%	15.8%
Continue at the 1954 level	68.2%	66.4%
Decrease	15.7%	13.4%
Don't know	0.0%	.6%
Omitted	0.0%	3.6%

	Average Weekly Wages & Salaries	*Average Wages in Individual Firms*
Increase	45.7%	46.9%
Continue at 1954 level	50.0%	48.1%
Decrease	3.1%	1.8%
Don't know	0.6%	1.2%
Omitted	0.0%	1.8%

Profits

When to the foregoing figures are added Canadian business expectations concerning the future prices of raw materials (51.8% predicted stability, 12.3% an increase and 16.4% a decrease) it is not surprising to discover that the largest proportion of the respondents expected an increase in profits (before taxes). In profits 45.1% expected an increase, 33.5% expected stability and only 15.8% expected a decrease. These proportions reinforce the optimistic tone of the poll commented upon previously.

	Prices of Raw Materials	*Profits (Before Taxes)*
Increase	12.3%	45.1%
Continue at 1954 level	51.8%	33.5%
Decrease	16.4%	15.8%
Don't know	3.9%	3.3%
Omitted	15.6%[2]	1.8%

Capital Expenditures

The optimism so apparent in the results outlined above did not,

[2]Again the non-manufacturing firms omitted this question.

however, appear in the planned capital expenditures for maintenance and expansion of physical equipment in the individual firms. First, 50% of the executives stated that they expected the expenditures for maintenance to be the same as they had been during 1954 while 25% expected them to increase and 20% expected them to decrease. On the other hand, only 30% indicated that they expected ependitures for the expansion of physical equipment of the same amount as had been spent in 1954, while 35.4% expected a decrease and 26.8% expected an increase. The actual calculations appear below.

	Capital Expenditures (In Dollars) For Maintenance	*Capital Expenditures (In Dollars) For Expansion*
Increase	25.0%	26.8%
Continue at 1954 level	50.0%	31.0%
Decrease	19.5%	35.4%
Don't know	.9%	6.1%
Omitted	4.2%	.6%

Regional and Functional Variations

It was pointed out above that the panel of executives was heavily weighted by manufacturers and especially by those located in Ontario and Quebec. The opinions of this group consequently tend to dominate the results. Non-manufacturers and particularly those in provinces outside Ontario and Quebec, however, do not entirely agree with the dominant group.

The first indication of a near contradiction comes from the predictions concerning the future trend of industrial production. Here the non-manufacturers in comparison with the manufacturers were quite pessimistic. A smaller proportion (50% against 61.6%) expected stability in industrial production while a much larger proportion (over 30% against 20.1%) expected a decrease. In the provinces outside Ontario and Quebec the divergence is much more apparent; 50% predicted stability while nearly 44% a decrease.

Secondly, in regard to prices and wages, among the non-manufacturers, especially those located outside Ontario and Quebec, only 44% (against 68.2%) expected stability in the consumer price. 44% (against 15.7%) expected prices to decrease and only 6% (against 15.2%) predicted them to increase.

Thirdly, profits of their own firms were expected to increase by a larger percentage (50%) of non-manufacturers than manufacturers (45%).

Lastly, the capital expenditure plans of executives outside Ontario and Quebec seem to disagree to some extent with the plans of the execu-

tives in Ontario and Quebec. More of the first expect to spend less on maintenance and expansion than do the manufacturers in Ontario and Quebec.

Primitive Magic

Opening his speech at the Business Outlook luncheon of the American Statistical Association, Business Quarterly editor Gordon Huson said: "Before my predictions on the business outlook in Great Britain, may I bring to your notice some current thinking on statistics in the Old Country. According to Time, Prime Minister U. Nu of Burma consults his astronomer before taking decisions of state. According to Schiller, General Wallenstein's inactivity until the stars were propitious caused his best friend to remonstrate 'in your own breast lie the stars of your fate'. According to Professor Ely Devons of the University of Manchester, writing in the Lloyds Bank Review, 'We would not think of examining the entrails of a chicken, of consulting an oracle, or of asking a deviner to find out whether the recession in the United States is going to get worse or not. Yet much of the grubbing about among national income and expenditure figures, of the statistical model-building of the econometricians and the desperate search for trend signs in the latest statistics bears striking similarities to primitive magic. There seem to be striking similarities between the role of economic statistics in our society and some of the functions which magic and divination play in primitive society. The only trouble is that we have a very large number of magicians and witch doctors. Statistical magic, like its primitive counterpart, is a mystery to the public, and like primitive magic it can never be proved wrong. We are giving statistics a magical power they do not merit'.

"Even given the fact that figures of the past can be one hundred per cent accurate, there is nothing to stop the oracles from making wrong inferences. Nothing is more solid than the coal output figures in Great Britain published monthly. Those published at the beginning of July caused a headline in the Manchester Guardian 'Coal output up on last year'; there was a similar one in the Daily Mirror. The Daily Express headline ran 'Output drops' and the Financial Times 'Holiday hits coal output'. The Times commented 'Output of coal for the week ended July 3 was 4,328,000 tons—a decrease of 124,000 over the previous week'. The Daily Worker, London's Communist paper, commented 'Coal output for the first 26 weeks of this year was 116,081,200 tons, which is 1,142,600 tons more than in the same period of 1953'. Even when you have finite, definite figures you can run the whole gamut of comment."

What Labour Expects of Business in 1955

Carrol L. Coburn

What are labour's plans for 1955? Fundamentally, they were outlined by W. J. Borrie in his presidential address to the Canadian Chamber of Commerce in October, "Probably our greatest contribution in the clash of ideologies is to make sure that there is no reduction in the standard of living but rather to create bigger and better opportunities for all". Press reports of the rest of Mr. Borrie's address suggest that there would be somewhat less than full agreement on the methods to be followed in applying that principle. But one of labour's major goals for 1955 will undoubtedly be improvement in the living standards, not only of organized workers and their families, but of all Canadians in the low and middle income brackets, in the conviction that only through higher living standards can we achieve "bigger and better opportunities for all".

Organized labour's 1955 expectations presented here will be followed in a subsequent issue by a statement of management's views.

LABOUR'S goals for 1955 may be summed up as a legislative goal to achieve a full employment program, a greater measure of social security for all Canadians and changes in labour laws, and a collective bargaining program to gain higher standards of living and greater job security.

Labour is quite prepared for the fact that its drive will be opposed, not only by employers who see either higher wages or higher taxes as a threat to their own profits, but by others in the community who fail to see how higher wages can be paid or greater social security benefits provided in a time of growing unemployment and declining business. But in fact it is exactly in those conditions that such measures are most necessary for the restoration of our economy to full health.

1954 Spent in Low Gear

You may call a spade a spade, and admit that we are in the midst of a recession which may or may not grow deeper, depending upon the measures taken to check it, or you may prefer the more hopeful term "adjustment" with its implication, not well supported so far by any economic facts, that if the economic machinery is left to itself it will soon slip back automatically into high gear. But in either case, it cannot be denied that business in 1954 has not been as good as in 1953. A

quick look at the statistics is sufficient to show that industrial production is down, sales are down, employment in terms of man-hours worked is down slightly for the whole economy, in spite of a growing labour force, and is down substantially for such directly productive sectors as manufacturing, mining, forestry and construction. And, of course, unemployment is substantially higher. About the only important indicators which are not down are prices and income from dividends, interest and rents.

In other words, our whole economy is slipping into a lower gear. Machines are idle, men and women are idle. Based on the average contribution that each employed person made to the gross national product in 1953, the cost of full-time unemployment as reported by the National Employment Service in the first eight months of 1954 has ranged from over twenty million to over fifty million dollars per week, totalling one and one-third billion dollars for the eight months. At that rate the cost will be over two billion dollars for the year, without taking into acount the additional cost of short work-weeks.

This is lost production which can never be restored. Canada's natural resources, her manpower and her industrial plant could have produced in 1954 at least two billion dollars worth more goods and services than they actually will have produced by the end of the year. Why? Because a flaw in the economic machine prevented the physical machine from operating at full productive capacity.

Canada's Potential Market

What is that flaw? Is it because the Canadian public is so satiated with goods that it no longer needs or desires as much as we are able to produce? That question is easily answered when we take a look at what the Canadian people have.

Most of us, if asked what goes into a normal Canadian standard of living, would probably agree that it should include an adequate home, equipped with good heating, running water and the usual sanitary conveniences, some form of refrigeration, a gas or electric stove, a powered washing machine, a telephone and so on. We would probably add a family car. Certainly we would agree that the great majority of Canadian families would like to have these things.

How far are we from having actually achieved that "normal" standard? The 1951 census showed that of Canada's 3,400,000 dwellings, 940,000—worse than one out of four—were either overcrowded, in need of major repair, or in many cases both. More than a fourth of the homes had no inside running water. Better than four families out of ten lacked a tub or shower for their exclusive use, and over a third lacked a flush toilet. Among the two and a half million households who had inside running water, nearly one in four had no hot

water supply, nearly one in four had no tub or shower of their own and about one in eight had no flush toilet of their own.

Nearly three million Canadian households now have electric light, but among this group there were still over forty percent with neither an electric nor a gas stove, and over forty-five percent with no mechanical refrigerator. In all Canada one-third of the households had no form of refrigeration at all. Of the homes with electricity, about one in six were without a powered washing machine, and over fifty percent without a vacuum cleaner.

In all Canada four homes out of ten were without a telephone, nearly half of them in urban areas. About half the homes were heated only by stoves. Substantially more than half, almost six out of ten, had no passenger automobile.

The census data do not tell us how many families possess all the above necessities, how many lack some of them and how many may lack all of them. But the figures make clear that over 50 percent, and more probably at least 75 percent, lack some or all of the things which a country with as much potential wealth as ours should be able to provide for all.

What is the Solution?

There is the paradox which labour is determined to solve. With this huge potential market of needs to be met, we are producing this year two billion dollars worth of goods less than we could have produced. Auto workers have been laid off, steel workers have been laid off, textile workers have been laid off — and have been deprived of the opportunity to produce the goods that are needed right in their own homes. There is no *physical* reason why we should not have full production and full employment in every industry that produces the goods Canadians need, or why we should be unable to distribute them to the homes that need them. There are only *economic* reasons why we are unable to do so — and economic reasons are, or should be, subject to the control of our society. The economic structure must be considered the servant of society, not its master.

The failure of our economic structure to make possible the distribution of as much goods as our physical machinery could have produced becomes understandable when you look at what Canadians have with which to buy the products of industry. Unfortunately we do not have in Canada studies of the distribution of income comparable to the excellent annual surveys sponsored in the United States by the Federal Reserve Board. But again a good deal of enlightening information can be obtained from the results of the 1951 census.

The census showed that over three-quarters of the wage and salary earning family heads (married males) in Canada had incomes below

$3,000 a year, and about 55 percent of all wage and salary earners had incomes below $2,000. Although there has been some improvement since 1951, in July of this year the average weekly earnings of all wage and salary earners in industry would still provide an annual income of only $3,065, *if the worker were lucky enough to be employed a full 52 weeks in the year.* The median figure would undoubtedly be substantially lower.

When to these figures we add our general knowledge of the falling income of farmers, and the miserable pittances available to such groups as pensioners, widowed mothers and the unemployed, there is no need to seek further for a reason why the potential market represented by the needs of Canadians has not been matched by the actual market of people ready and able to purchase the goods they need.

More Buying Power

To correct this condition, labour will continue to work in 1955 to get additional buying power into the pockets of those who now have the least in relation to their needs. It will follow a program of action on two fronts — the legislative front, and the collective bargaining front.

At Ottawa, and to a lesser extent at the provincial capitals and in municipal council chambers, labour will press for a full employment program. The essential elements of such a program have already been laid down by major labour bodies. They include:

1. *Increased social security.* More nearly adequate pensions, payable at a lower age. An increase in family allowances at least commensurate with the increase in living costs since they were established at their present level. Increased unemployment insurance, and adequate assistance for those without insurance. A national health insurance program.
2. *Re-allocation of the tax burden.* An increase in the personal income tax exemption and reduction in the sales tax, with a view to its abolition as quickly as possible, accompanied by stiffer tax rates in the higher income tax brackets, plugging of such loopholes as the special tax exemption on dividends, renewal of an excess profits tax on corporations and imposition of taxation on speculative capital gains.
3. *A large-scale public works program* in the broadest sense of the term — that is, a program of building designed to attack our shortage of homes, schools and hospitals, fuller development of natural resources, an extended highway program and aid to municipalities in street widening, development of parking facilities, sewage plants and other needed services.
4. *Improved labour legislation.* Labour has frequently found itself handcuffed both by archaic labour legislation and by inadequate and dilatory administration of existing laws. In Ontario, for example, the Labour Relations Act is, in many respects, worse

than the notorious Taft-Hartley Act in the United States, and its "conciliation" service is a farce. Labour will continue to demand a national labour code setting minimum standards on which the provinces will be free to improve, and providing for national collective bargaining with employers who have establishments in several provinces organized by the same union. Enactment of a national code, however, is necessarily a long-term program, especially since it may very likely require an amendment to the B.N.A. Act to make a really effective law possible. In the meantime, labour will continue to press provincial governments for extensive improvements in present legislation. Its demands will include elimination of red tape and delays from conciliation procedures, a standard forty-hour week, decent minimum wages, improvements in paid vacations and holidays, effective (and effectively administered) legislation to assure women equal pay with men for equal work, to put an end to discrimination against ethnic or religious minorities at the hiring office or on the job, and to regulate employment of children and young people, and legislation in those few provinces which still lack it to compel employers to check-off union dues when their employees request it.

5. *Improved farm legislation.* Workers in industries directly dependent on farmers, such as the manufacture of agricultural implements and trucks, and the processing of food, have had driven home to them the close relationship between falling farm incomes and their own unemployment, but organized labour generally is becoming more aware of the fact that the economic conditions of farm people and of city workers are inseparable. Labour has not attempted to usurp the function of farmers in determining what specific legislative measures are required, but it will support them in any effective program designed to improve their economic condition.

6. *An international program of greater economic aid and increased trade.* From its own experience with native communists, labour knows how communist propaganda thrives on want and frustration. Far more effective bulwarks against communist expansion can be built through increased economic and technical aid to underdeveloped countries, removal of as many trade barriers as possible against our friends outside the Iron and Bamboo Curtains, and greater support for the special technical organizations of the United Nations.

Deficit Financing

Until economic recovery has been achieved, effective application of the above program will probably mean deficit financing at the Dominion

level. Labour well remembers, however, that when high levels of taxation were maintained in the face of huge governmental surpluses, we were told that this was part of the program of cyclical financing, that surpluses were being built up in good years so as to finance programs that might be needed if a depression should strike. Labour has no quarrel with this fiscal theory, but we feel that it is even more important to apply it in the downward curve of the business cycle than in the upward curve, and especially so in the early part of the downward curve, when money and energy can be directed to positive anti-depression measures, rather than being absorbed entirely in purely ameliorative efforts.

Stiffer Employers' Opposition

On the collective bargaining front, labour has had a foretaste this year of the kind of stiff opposition it may expect, and it will fight if necessary to achieve the gains to which it feels entitled. Some employers, including some of the largest and most prosperous, appear to be taking the stand that with plenty of workers unemployed and with the threat of layoff as a club in their hands, they have the economic strength not only to deny labour any gains, but to destroy some of the gains previously made, especially in the "non-economic" clauses of their agreements.

While some employers may gain temporary success in this manoeuvre, it is apt to prove a Pyrrhic victory. The prospect of enhancing one's competitive position or one's profits by driving down labour costs, or even holding the line while productivity goes up, may seem attractive to the individual employer. But in the present collective bargaining situation labour sees more than a hint of concerted action on the part of employers, and if they should succeed in making still greater the imbalance between the productive capacity of their industries and the ability of workers to buy their products, they will simply be inching the economy closer to a really serious depression, with all the social and political as well as economic consequences that would result.

Not only are wages inadequate to maintain the buying power our economy needs or the standard of living to which workers feel entitled, but the disparity of wages between Canada and the United States presents labour here with a constant challenge. No amount of argument will persuade workers, especially those employed by subsidiaries of American corporations, that they should be content with a wage scale which in manufacturing industries averages 35 to 40 cents an hour less than their fellow workers receive from the same corporations for the same work in the United States.

Fringe Benefits

In addition to direct wage increases, labour will continue to press for substantial improvements in pensions and in medical and hospital plans. Business could, of course, ease this pressure by helping labour to obtain adequate pensions and national health insurance at Ottawa.

In current labour relations, the obvious eagerness of some employers to break down seniority protection and other non-monetary provisions in their agreements is the source of much anger among labour people, and if persisted in it can embitter labour relations for years to come. It is all very well for the employer to dream of the day when he can simply lay off whichever workers he does not at the moment need, without having to go to the trouble of rearranging his work force so as to retain those with most seniority. But it is exactly this attitude which labour has been fighting — that workers are to be considered a commodity, to be used or laid off in whatever manner proves most profitable to the employer.

On the collective bargaining front, then, labour will fight if it must, both to increase its buying power and to protect and improve those non-monetary provisions in its agreements which represent not merely job protection but a recognition of the dignity and worth of the worker as a person and his right to be treated as a human being and not just a figure in a profit statement.

Guaranteed Annual Wage

The major advance which labour intends to make in 1955 is the negotiation of guaranteed annual wage agreements.

A great deal of nonsense has emanated from employer organizations about the guaranteed annual wage, most of it merely betraying the fact that its authors have either failed to take a look at the fairly detailed proposals already made public by the unions which are leading the guaranteed wage fight, or that they prefer to disregard facts and busy themselves creating bogeys with which to frighten themselves. The guaranteed wage has been presented as a fantastic nightmare that would drive into bankruptcy any employer who agreed to it. For example, an executive officer of the Michigan Manufacturers Association told its annual meeting recently that if one large U.S. corporation had had a guaranteed wage agreement in 1937 the corporation's entire capital assets would have been wiped out in that year — sublimely passing over the fact that the specific guaranteed wage proposals of the major unions would limit the employer's obligation to a specified maximum.

The fact is that unions have just as big a stake as employers in developing a *workable* guaranteed wage plan. The unions have been working, not for weeks or months but for years on the development of specific proposals. At least one of them formed an advisory committee of top-flight economists from the leading Canadian and U.S. universities to go over their plan with critical eyes. The guaranteed wage plans to be proposed will vary from industry to industry in accordance with the specific conditions that exist, but they will probably have in common such elementary features as a ceiling on the employer's obligation and establishment of reserve funds in good years to help meet extraordinary costs in bad years.

Some of the unions make no secret of the fact that one of the primary objectives of their guaranteed wage proposals will be to give employers a substantial financial incentive to stabilize employment through the year. Such stabilization, wherever it can be effected, will be of benefit not only to the economy but to the employers themselves. It is a curious paradox that in some industries at least, such as the automobile industry, the competitive pressure on each corporation to maximize its profits by gaining the largest possible share of the market has resulted in production and employment policies which are not only socially wasteful, but costly to the employers themselves. (The alternative, of building bigger markets for all business by a wider distribution of purchasing power, does not seem to have occurred to them.) In the meantime the guaranteed wage, by putting a counter-pressure on the industry to adopt more stable schedules, may well provide substantial cost savings.

Of one thing employers may be sure — that when unions come to the bargaining table with guaranteed wage proposals, they will be proposals that have been carefully thought out, that take into account the employer's problems as well as the needs of the workers, that will be backed by careful research studies — and that they will be backed also by the determination of the unions that this is the next major goal they are going to win on the collective bargaining front.

More Money for All

Speaking recently to the Montreal Canadian Club, Graham Towers, former Governor of the Bank of Canada, said:

"From its organization in 1935 until the outbreak of the war, the problem of what policy the Bank of Canada should pursue was not a difficult one because the relatively high level of unemployment and the deflationary tendencies of the time clearly called for any reasonable degree of encouragement to the expansion of credit that a central bank could give.

"Nor in a sense was the war period a difficult one for the framers of monetary policy. The overriding necessities were such that the most a central bank could hope for was that the costs of the war should be covered by taxation to the maximum extent the public would bear and that everything possible would be done to encourage savings. Financing directly or indirectly through the banks had to be looked on as a last resort, but to the extent that it was inevitable central bank policy had to adapt itself to this situation.

"In respect of monetary policy, the postwar period has been a much more difficult one. Perhaps it will suffice to say that the struggle to minimize inflationary pressures came to an end a little over a year ago. Since then a very much easier credit situation has developed and this has had a distinct effect on interest rates in the market."

The Hows and Whys of Industrial Research in Canada

John R. Kohr

How does Canadian industry compete in the technological progress race? Are Canadian firms falling behind because of inadequate research? Must industry finance its own experimentation? How much should industry spend? What help is obtainable from provincial and federal sources? How much does it cost? Asked all these questions, Dr. Kohr has answered in a style both stimulating and original.

A MILD state of intoxication may result from reading the chapter entitled "Review of Canadian Manufacturing" in the current *Canada Year Book*. The official who wrote this chapter is, of course, as sober as a statistician: his style crisp, hard, crystal-clear; his presentation of the facts unbiased and upright. But it's the facts themselves that make the imagination reel:

> "Canada is no longer on the fringe of industrialization but ranks among the world's most important manufacturing countries . . . Yet it is not the mere rate of expansion that is significant . . . The real significance . . . is that never before has there been an advance on such a broad industrial front.
>
> "Canada's per capita trade . . . was higher than that of any other country . . . Millions of dollars are being invested in oil . . . The manufacturing industries of Canada . . . again established a new record . . . A $40,000,000 mill was nearing completion . . . other multi-million-dollar plants . . . unprecedented expansion . . ."
> Positively . . . breath-taking . . . isn't it?

However, this report doesn't describe only the ups but also the downs of Canadian business today:

> ". . . some industries, notably textiles, clothing, and major appliances, are experiencing difficulties . . . The textile industry was typical of consumer goods industries which faced a market softening." (Softening — what a beautiful word for a rather ugly fact!) "Investment resources had been largely expended on the basic enlargement of industrial capacity . . ."

Ay, there's the rub.

Faced with a market softening, even a hard-headed businessman might take time out to ask whether some of these investment resources shouldn't have been plowed back into technological development instead; or, for that matter, into scientific research, which forms the soil for the seeds of industrial progress.

Since I started talking about science and industry in this agricultural style, I might as well add: when constant cropping removes the vital trace-element of research, any field of industry, no matter how fertile when first cultivated, may suddenly begin to yield poorly.

Irrational Attitudes in Favour of Research

However, it isn't enough for a firm to decide practically overnight: "We simply must do some research". This attitude reminds me of a classmate of mine who, when in love, would unexpectedly break away from our gay gatherings, mumbling: "I simply must make a poem!"

Nor does it do any good, as a rule, to "call in the scientists" after a firm has lost its grip on the market. Science is not a cure-all. Or, in the words of John C. Green, Director, Office of Technical Services, U.S. Department of Commerce, when speaking of "Research for Small Industries":

> "Research should be given its proper importance in business operation. However, it can never substitute for other and equally important factors of industrial success. Capable management, a skilled labor force, a competent sales organization backed by a product of popular appeal priced to meet competition are at least of equal importance.
>
> "If we admit that small firms can fail because of normal errors of judgment, incompetence, and plain bad luck, we can take a more objective look at the role of smaller businesses in the economy and methods proposed for maintaining their vigor."

Thus some firms, especially the smaller ones, may make a false start in scientific research out of sheer panic, while others, especially the larger ones, may spend a good deal of money on research out of sheer snobbery—very much along the lines of the seventeenth century letter, quoted in Dobrée's *Essays in Biography*:

> "My Lord Halifax desires you will bespeak him a set of all kinds of mathematical instruments, of the largest sort, in ivory, but adorned as curiously as you please, they being more for furniture than for any use he's likely to put 'em too; he designs to hang 'em up in his library."

A *Punch* line once characterized this tendency of conducting research merely for the sake of prestige:

"The smell of so much sulfuretted hydrogen is bound to impress the visitor."

Another advantage of research, according to the same piece in *Punch,* is that "Somebody may some day discover something that might make all the difference." This remark admirably describes the widespread, and still spreading, belief that scientific research is essentially a reckless gamble similar to—but of course much more refined than—the Irish Sweepstakes or one of those newfangled two-thousand dollar Prize-Word Puzzles (the ones with the sixteen "simple" clues, but each of them having at least two solutions, so that you would have to send in at least 65,456 entries to be reasonably sure of the right answer).

John C. Green, the man I just quoted, (and I see no harm in quoting a good man twice in a row) puts his finger on the growth of this faith in science—not as a path to the pinnacles of knowledge (the nineteenth-century, or enlightened, faith in science)—but as a sure-fire get-rich-quick scheme, whereby a smart operator might corner the market with a hundred-miles-to-the-gallon gasoline or "make a killing" in miracle drugs, if you will pardon the expression!

Mr. Green says:

> ". . . the tremendous scientific achievements of World War II, the Atomic Energy programme, the new industry, television, and many other glistening products ably reported by the advertising agencies through all information media have built up a public impression that the scientist is a magician capable of solving all ills and insuring peace and prosperity. Perhaps the scientist is a bit guilty, too; he remembers all too well the relative obscurity of scientific workers in universities and industry prior to World War II. And it is true that where responsible people have spoken out concerning the difficulty of predicting results and the probabilities against amazing overnight strides, their comments have not been widely appreciated."

The fallacy of using exclusively the foregoing irrational arguments in favour of doing research is neatly pointed up in the opening sentence of an article on "Science and the University" (*Queen's Quarterly,* Autumn, 1954) by Dr. E. W. R. Steacie, President of the National Research Council of Canada:

> "We are living in a period in which there is a very wide interest in science, and very enthusiastic support of scientific research. This is in many ways a pleasant situation for the scientist, but in some ways the interest and enthusiasm raise many problems since they are largely based on a confusion of the aims of science with those of technology."

Some Valid Reasons "in Favour of doing Research"

In contrast to these *irrational* attitudes (which, by the way, are not necessarily *bad* attitudes), here are some of the *reasonable* attitudes an industry may assume to justify its research effort:

First, natural curiosity. Granted, curiosity killed a cat; but did it ever kill a catalytic cracking plant? Suppose you deal in ski equipment. Naturally, you want to know more about the materials skis are made of: wood, steel, etc. This knowledge is likely to be directly useful to you. But you should also be curious enough to find out more about the material *for which* the skis are made: snow in all its marvellously varying forms. This knowledge, too, will eventually make your cash register jingle; and, in the meantime, oh, what fun it is . . .

Secondly, research should be a sort of "setting-up exercise" for industry. A boxer in training doesn't do his rope-skipping routine in preparation of skipping over the ropes of the ring; nor his push-ups in the hope that they'll make it easier for him to get up before being counted out. On the contrary: rope-skipping helps him to *stay* in the ring; push-ups make it less likely for him to hit the canvas in the first place.

Thirdly—and this is where research gradually approaches technology—a sustained research effort tends to accomplish three things of direct advantage to industry: reduction of costs, improvement of existing products and development of new ones. To achieve these goals, however, *scientific* research *alone* is not enough. Market research, operational research, and a study of what is called—rather materialistically, I think—the "human resources" is just as important. To emhasize the value of the type of research that is not directly connected with the natural sciences, all I have to do is to refer to the Summer, 1954 issue of *The Business Quarterly,* where two excellent articles illustrate my point: "Cost Reduction Through Material Control", by Alan Fogg; and, at the other end of the spectrum, "Canada Hailed Internationally—By Design", by D. W. Buchanan.

Irrational Attitudes "Against Doing Research"

If one wants to give a complete picture of the why's and wherefore's of scientific research, it is not enough to contrast the rational with the irrational motives in favour of doing research. The picture would lack depth if the irrational arguments "in favour" were outlined without sketching in, at the same time, the background to some equally irrational arguments "against doing research". It is a well-known fact that for every snob there is a counter-snob (the richest people in the neighbourhood being just as proud of their wealth as the poorest people of their hard luck); for every go-getter there is a Milquetoast; and for every progressive there is a conservative (opposite tendencies being perfectly capable of showing up in the same person—or party!)

Historically speaking, the first objection to scientific research, made by industrialists, was: "What good does it do us, anyway?" At first glance, it would hardly seem worth while to bother a modern businessman with this old-fashioned pseudo-argument. But as recently as 1 April, 1954 there was a series of questions on the order paper of the House of Commons, inferring that certain papers on fundamental research projects, published by the Queen's Printer, were of rather doubtful practical value and therefore a waste of the taxpayers' money. Among the titles, released with a sort of schoolboy glee by the Press all across Canada, I remember in particular: "Abdominal width and sexual maturity of female lobsters on the Canadian Atlantic coast". But the tables were turned on the questioner, when the Minister was able to show that without investigations of this kind the tables in the Parliamentary restaurant would soon be deprived of lobster as one of its culinary delicacies!

The classic retort to the "what-good-does-it-do-us" question was made more than a hundred years ago, when somebody said to Michael Faraday: "As I understand it, you discovered that a magnetic force can cause a magnetic pole to move around a wire carrying electric current. This is all very interesting. But, pray tell me, of what possible use it can be to us?" Whereupon Faraday answered: "Of what possible use, Sir, is a new-born baby?"

Another case in point is the little story told by Dr. Baekeland in *Science and Industry* (21 June, 1938):

> "Andrew Carnegie drew the mockeries of his competitors in the steel industry, after they learned that 'Andy had imported a German professor with spectacles, to teach him how to make better steel'. However, this German professor was simply a good chemical analyst, who was able to inform his employer which iron ores were best, while his ignorant competitors valued their ores by the price at which they had to purchase them."

By the way, the sale (but not the manufacture, I assure you!) of perfumes is still governed by this identification of *price* with *value.* And even the housewife, not normally known for romantic taste of extravagant buying habits, is likely to consider the *higher-priced* tomatoes as *better* tomatoes, although they may have come from exactly the same packing case!)

The second argument against companies carrying out research is: "We don't need it". Underlying this attitude is, perhaps, some subconscious resistance to change. It is not uncommon that business as well as labour organizations fear that even a change for the better may, at the same time, in some subtle and unfathomable manner, be a change

for the worse! (It is increasingly evident that, in addition to economic analysis, we also need economic *psycho*-analysis.)

In Canada, two main groups have thus far inclined towards a rather negative view on industrial research: first, subsidiary firms who get their research "ready-made" from head offices located outside Canada; second, thousands of small "local" firms who have perfected one or two articles and can sell them as fast as, or faster than, they can make them.

Research of all types, not only the scientific variety, notoriously takes a back seat when everything is booming; for it is then that business is busy-ness, indeed.

Sir Henry Tizard, in a key-note article on "Sponsored Research" (*Research*, October, 1954), is quite outspoken about this failure of small industry to see its way clear towards a realistic view on research:

> "But where do small firms go for investigation of their own problems, and development of their own ideas? The answer in many cases is nowhere. *The need is not felt.* They have had an easy time in the economic circumstance of the post-war period. But competition is getting more serious now, especially in the export field. The trade winds are getting colder; and the best form of protection from them is quality and progressiveness."

This remark fascinates me because it not only illustrates the we-don't-need-research attitude but it also foreshadows the potential danger of falling into the opposite error, namely the we-can't-afford-research argument.

"We can't afford it" has always been a favourite phrase in times of recession or, if you prefer, retrenchment. If it were not for an occasional undertone of panic, the argument that we can't afford something is one of the most reasonable in the world. Who, among Canadian industries, *can* afford to do research?

Research Budgets—And What To Do With Them

Research to many Canadian industries is what a fur coat, a set of *Encyclopedia Britannica,* or a full-time maid is to many Canadian families: the need, or at least the urge, to have these amenities arises so suddenly that you don't budget for them much in advance. It's not like the regular sum set aside for household money, a sum you have arrived at by long—and sometimes bitter—experience. Moreover, you are not likely to keep statistics or compare notes with your neighbours on these one-of-a-kind items. Nevertheless, your general know-how in financial deals will make it possible for you to decide, one way or the other, on a fairly sound basis. Dr. Steacie, speaking at the opening of the C.I.L. laboratory at McMasterville, 22 October, 1954, put it this way:

> "It is very difficult to obtain proper figures on research expenditure, especially in industry. Figures are apt to be arrived at with one eye on the question of prestige and the other on the tax collector, and the resulting 'divergent squint' rather blurs things out."

These figures may run as low as one per cent or as high as three per cent of sales. Even at the higher figure, only about 2,000 firms of Canada's more than 35,000 (or around 6 per cent) would be able to set aside more than $30,000 a year for research. This isn't much money, nowadays, to keep a permanent, and competent research staff; to say nothing of the initial cost of installing, and the the recurrent expense of maintaining, a well-equipped laboratory.

But it's a start. And it may pay off handsomely, especially if the company avoids the danger of what E. A. G. Liddiard, in an article on "Sponsored Research in Great Britain" (*Research,* October, 1954) calls "an uncritical attitude to the method of financing research and a tendency to measure research effort only by the amount of money which is paid into research institutions". In other words: beware of the same old fallacy of "price = value"; remember the price paid for ores by Andrew Carnegie's competitors!

An even more subtle pitfall, namely that small laboratories may try to imitate slavishly some of their Big Brothers, was uncovered recently by Dr. Steacie:

> "The most important feature of size is what the engineer calls the scale factor. It is a well-known fact that the behaviour of a model is not directly applicable to a large object. In the same way it is essential that the small laboratory should not merely be a small-scale version of the large one. Consider, for example, a large firm with a research staff of 1,000. This staff might be working on say 50 problems with an average of 20 people on each. There is often an unfortunate tendency in a small laboratory to copy the big one, and with a staff of say 25 put 0.5 men on each problem."

The Core of the Matter

Coming down to brass tacks, most of this advice, however well intended, is of little but academic value to the vast majority of Canadian firms with sales below the million-dollar mark? How can *they* afford research?

And here is where we come to the core of the matter. To keep yourself technologically up to date—and that is, after all, the thing that counts in a progressive company—you don't have to *do* research in the first place. You can *buy* research. You can *borrow* research. You can even *steal* research. (But you'd better not, if you want to steer clear of patent actions.) And best of all, *you can get it free.*

This is not the place to give you detailed suggestions on how to *buy* research. But here is a little tip: the respectable industrialist never *buys* research — he *sponsors* it. And as for sponsored research, you can read all about it in the previously quoted issue of *Research,* which devotes almost all its space to this subject.

Nor is this the place to explain how you *borrow* research. It may not be amiss, however, to give certain industries another little tip, namely how to *give back,* eventually, what they have already borrowed, unless they wish the common pool to dry up from which they have so liberally drawn. Here is what I mean, again in the words of Dr. Steacie (and I see no harm in quoting a good man three times in the same article — even though he happens to be President of the organization for which I work!)

> "One very striking thing in Canada has been the relatively small support of research in the universities by industry. It is here that industries can themselves contribute to the solution of the problem of the scientific manpower they need . . .
>
> "What is needed is more free, general support, and more support for the outstanding man at the post-doctorate stage. Above all, support is needed which is not earmarked for 'practical' investigations . . .
>
> "Industry needs the men which only the university can supply. There are no constitutional problems in this type of assistance. It seems to me that this is the only possible solution of the present university predicament. It is not cheap if it is done properly, but it is the only way to assure a strong foundation for Canadian science and an adequate supply of men for the coming demands of industry."

How You Can Get It "Free"

The Federal Government and some of the Provincial Governments provide certain research services which are, in a sense, "free". It goes without saying that Government aid to industry is not set up in competition with consulting engineers or chemists or with commercial testing laboratories. In fact, for an industry that may want to keep results of a specific research project for its exclusive use, Government laboratories work only on a fee basis (if they can be engaged at all) even if no private laboratory in Canada could handle the job. And the fees would be quite substantial, even if some aspects of the project were to benefit other industries or, as they eventually may, to benefit the country as a whole. Space in Government laboratories is at a premium; and so is the time of Government scientists and technicians.

On the other hand, the Government — through its diversified research installations in fields that vary from Atomic Energy to Zoology —develops a mass of new and vital information. This research infor-

mation, however, is of little use if it isn't properly disseminated. It is very much like a by-product that has to be utilized if we don't want it to become a waste product.

Many industries, particularly smaller ones, work sometimes desperately on the solution of a problem that has already been solved. A thorough search in the literature avoids much duplication of effort. The library of the National Research Council and its branches are often able to lend a helping hand. Industries have *free* access to these library facilities (and there is only a nominal charge for such additional aids as photo-copying services). Moreover, industries that don't have the necessary technical officers to carry out literature searches — and nowadays you have to be practically a librarian to do this well yourself— may draw on the special skill of the Government's Technical Information Service. This service, too, is provided *free of charge.*

In addition to its headquarters staff at the National Research Council, Ottawa, the Technical Information Service maintains field representatives with local offices in the various industrial areas. Recently, field representation in Alberta, British Columbia, Ontario, and Nova Scotia was taken over by the Research Council of Alberta, the British Columbia Research Council, the Ontario Research Foundation, and the Nova Scotia Research Foundation respectively.

To some degree, T.I.S. acts as a clearing house: many inquiries are transferred to the Forest Products Laboratories, Bureau of Mines, Departments of Agriculture, Fisheries, etc. Questions on building problems should be addressed to the Inquiry Service of NRC's Division of Building Research.

Since many inquiries deal with the same problem, answers to questions that are asked most frequently have been made the basis for "T.I.S. Reports". About forty reports have been issued thus far. A list of titles is available. Recent reports deal with such varied topics as: Casting of Metals in Shell Molds; Humidity Control in the Printing Plant; Static Electricity and Methods for its Elimination; Marine Propellers — A Guide to the Literature on Design and Production; Spot Welding Machines; Mechanical Maintenance of Plant Equipment; and "Fabrication d'ouvrage de Maçonnerie en Beton". Inquiries made in French are answered in French.

Grouping together the inquiries answered in the field and by letters sent from the Ottawa office, the total for the year is now approaching 8,000, or over 650 a month.

Summing up the activities of T.I.S. for the *NRC Review, 1954,* Mr. F. G. Green, Officer-in-Charge, (no kin to the previously quoted Mr. John C. Green, Director of Technical Services, U.S. Department of Commerce) starts by saying:—

> "An early slogan of the Technical Information Service suggested, 'Why burn the midnight oil if somebody else has already done it for you?' . . . About 60 million pages of technical material are being printed each year.
>
> ". . . Cost of literature searches in the United States has been estimated at from 300 to 750 million dollars annually, or 10 to 25 per cent of the total spent on research."

And Canadian firms asking for similar services are supposed to get all this *"free"*? Just for the asking? Surely *somebody* must pay for it! And if the *users* don't, who does? Looks like there's a catch to it, somewhere along the line.

Of course there is a catch to it; remember that I said the Technical Information Service was free, *in a sense;* no exaggerated advertising claims; nothing about *absolutely* free!

Naturally, it's the *users* who, to a large extent, pay the shot; for, by using the Technical Information Service, they set in motion a chain if self-perpetuating reactions (known as the Kohr Cycle, after its discoverer), as follows:—

The better informed you are about your technical problems, the better your product will be; the better your product is, the more you'll sell of it; the more you sell, the more profit you'll make; the more profit you make, the more taxes you'll pay . . .

The Government giveth and the Government taketh away.

Looking Ahead

The Business Quarterly, Spring issue, will feature Canada's stake in international trade with articles, we hope, on "the non-material advantages to Canada of foreign trade", by Ernest Watkins of the Economist and B.B.C., "planning an export advertising campaign", by Eric Curwain now of C.I.T.F., and "U.S. Customs' Appraisement", as seen by the Federation of British Industries.

In addition we hope to include, by Dr. H. Logan of Toronto University, an outline of the past 21 years of Labour Organization in Canada and by Colonel E. E. Reilly of Western University, a summary of the effects on Canadian business of the recent changes in the Bank Act.

Student Reaction to Company Recruiting

N. M. Armstrong

Company representatives, after interviewing future graduates for jobs, frequently ask the placement director, "What did the students think of our visit here?" In this article, Neil Armstrong, Placement Director at the School of Business Administration, University of Western Ontario, reports the reactions of graduating students to the present recruiting methods of business.

IN the spring of 1954, almost nine hundred individual employment interviews were conducted at the School of Business Administration. Over one hundred graduating students from the graduate and undergraduate schools met with seventy-five company representatives. After the period of interviews, each student was asked to complete a questionnaire, designed to allow him to report his experience rather than make judgements about the procedure. As some subjective answers were necessary, students were allowed both adequate space and time to complete the form which required at least one hour to fill in. Most students did this at home. All filling the questionnaire had already accepted offers of jobs. Of ninety questionnaires distributed, sixty were returned. Some students had not taken enough interviews to feel that their reactions were valuable and others were prevented by the pressure of examinations. The ballot was secret: identification of returns was impossible. Before an analysis of the questionnaire and students' answers, however, the placement procedure at the School should be explained.

Placement Procedure at the School of Business Administration[1]

Employers wishing to offer a position to students are provided with a standard "job opportunity form". This form, after completion by the Company, gives details of the position and is posted on the Placement Bulletin Board for one week. Publicity is also given to job opportunities in the student press and class announcements. Supplementary information about the firms offering employment is available in the Placement Library and the School Reference Library also contains all the usual sources of business information. The student is encouraged to do some research about the company and provided he is satisfied that it offers him what he wants, he signs for an interview at a specific hour.

Individual interview rooms are assigned to each company. Personal resumés on each student to be interviewed are sent to the interviewer,

[1]A more complete description of recruiting at the School is available in "Personnel Recruiting on the Campus". N. M. Armstrong. The Business Quarterly — Fall, 1953. Vol. XVIII, 3.

if possible, before his arrival or given to him at the School before the interviews take place. These personal data sheets and work histories take the place of the company application forms until after the interview. Length of interview varies with the wishes of the company, the number of people to be seen, and the time the company makes available.

To simplify post-interview relations between companies and students, the placement office asks for copies of all company correspondence with students, as this has been found to expedite students' decisions and lessen confusion. The School sanctions interviews out of town, provided these do not conflict with academic policy.

More Information Needed About the Company

Did you feel that the "Job Opportunity form" adequately described the Job?

Yes — 60% No — 40%

The purpose of this form is to give the student sufficient information to decide whether he is qualified and also sufficiently attracted to find out more about the company and sign for an interview. Some companies feel that they waste time interviewing poorly prepared and misinformed students. In many cases they may have themselves to blame. This form is the company's introduction to the student. If it is well done, tells the story truthfully and in sufficient detail, both interview and follow-up will be simplified. The University naturally feels a responsibility to industry to see that the time spent on the campus is as productive as possible. The blank announcement that the Doe Company will visit the university on January 24th, has some vacancies, and is interested in seeing all qualified students, makes the placement office assume the task of creating a job title or description. This would obviously be better done by people who know precisely what jobs are available and whom they need. Furthermore, a company should never telephone arrangements without confirming its needs on paper.

Were the supplementary materials in the Placement Library adequate?

Yes — 30% No — 70%

Companies with a well developed executive training programme have realized the value of good publicity material and have prepared information for students. It is important that the student be well informed about the company and its openings before coming into the interview. Telling the company story is wasting interview time.

A special brochure designed for the student, outlining company operations and showing how a new staff member fits into the organization and what are his chances of advancement is a very welcome addition in the placement office. This does not mean an expensive book; a

mimeographed brochure is sufficient. Provided this material is good and the job opportunity is completed in sufficient detail, students are discouraged from "window shopping", i.e. attending interviews with more curiosity than serious intentions, a habit naturally deplored by employers.

Some Companies brought a recent graduate in their employ to talk informally to interested students. Do you feel this is valuable?

Yes — 100%

Employers using this approach are enthusiastic about it and the School has encouraged this practice, because a graduate who has spent two or three years with a company is able to give valid impressions of both job and company which may clarify the student's picture. The graduate does not actually interview although his opinion of each applicant may prove valuable to the interviewer.

Did you feel adequately prepared when you went to your interview?

Yes — 85% No — 15%

Considering that 70% complained of inadequate information about companies, some of the 85% affirmative answers here must have done some special research beyond the inadequate material provided by companies.

Interviewing Requires Experience

Did the interviewer establish good rapport and make you feel at ease?

Yes — 68% No — 32%

Interviewing is a difficult art, involving the fine elements of diplomacy. It is no job for the immature and inexperienced. In this first meeting with the student, the interviewer must be able to do three things: (a) give information (b) get information (c) make a friend.

The interview must be conducted in such a way that the student will unconsciously indulge in a self-analysis without embarrassment. The way in which the interviewer greets each applicant sets the tenor of their talk. As the interview is inseperably linked with the personality and ability of the interviewer, companies should send people to the campus who are easily approached, can turn nervousness into confidence and bring forth a normal reaction.

Did the interview seem planned?

Yes — 96% No — 4%

Although most interviewers seemed to have a plan, it is doubtful whether we can assess objectively the pattern established. The students noted that some interviewers talked too much. This ranged from "not

able to get a word in" to being bored by a rapid fire repetition of all the company information available in the library. In only 50% of the interviews did the students feel there was a good balance of giving and getting information.

Who dominated the interview?

Interviewer — 90% Interviewee — 10%

Most students felt that the interviewer should dominate the interview, if this really meant control and not merely monopoly of the conversation. It is interesting to note that students did not mind being interviewed by a team of interviewers as long as all took part in the interview; they objected wherever one of these persons was obviously just an observer.

Did you find the interviewer objective about his Company?

Yes — 85% No — 15%

In most cases where overselling on the part of the interviewer was noticed it produced a negative reaction. If the pre-interview information is adequate and has been read by the student there is no need to "sell" in the interview. The interviewer's personality and ability are the best indication of the company's character.

Did the interviewer represent his company at a sufficiently high level?

Yes — 96% No — 4%

The only unfavourable comment stated that the representative was from a high enough level, but knew nothing about the department for which he was acting.

Did the interviewer stay on schedule?

Yes — 60% No — 40%

Students with a full day of class meetings have made appointments for interviews which are usually at the only time available to them. The school does not sanction absence from class for interviews; therefore, interviews have been missed because of poor timekeeping.

How important was the initial interview in making your decision to carry on further negotiations with the company:

(*a*) *If this was your first contact?*

Important — 95% Not important — 5%

(*b*) *If you had a previous contact?*

Important — 45% Not important — 55%

The importance of the initial interview must be emphasized. Even in the case of a previously favourable contact, an unsatisfactory interview at the school caused a student who might otherwise have become a valued employee to abandon all interest in the company.

Was salary discussed in the initial interview?
Yes — 68% No — 32%
Who broached the subject?
Interviewer 75% Student 25%
Were other benefits discussed?
Yes — 20% No — 80%
Did you want to know about these "extras" at this time?
No — 95% Yes — 5%

Salary and benefits do not rate as highly in the student's mind as opportunity, as adequate rewards usually accompany real opportunity. However, industry is setting high competitive starting salaries and should let the students know the going rate.

Follow-up by Companies

How long did you wait to hear further from the Company:
1 week — 20% 2 weeks — 26%
3 weeks — 18% 1 month or more — 28%
What do you feel is an adequate length of time?
1 week — 15% 2 weeks — 65%
3 weeks — 20% 1 month or more — 10%
Do you prefer to hear from the Company even though the answer is no?
Yes — 100%

One student noted appropriately that "this is only courtesy, and courtesy is good business." A company may interview two hundred people in universities across the country and select only ten as trainees. If interviews and follow-up have been done properly, this company will also have gained a large host of friends. Personnel directors who feel that such correspondence will burden their organization unduly, should realize that over the years they will reap benefits far in excess of the original cost.

Do you feel that out-of-town interviews are valuable?
Yes — 100%

There is unanimous agreement that it is very important to see the company's operation and head office before coming to a final decision. The company is obviously interested in interviewing the applicant more than once, and a trip to head office is usually the most effective way of carrying out a second assessment. The trip can also be used to conduct tests, although lengthy testing at this time should be avoided.

How were offers of employment made?
Letter — 50% Phone — 12% Personal interview — 25%
Telegram — 10%

Which method do you prefer?

Letter — 75% Phone — 5% Personal interview — 20%

How long do you require to decide on an offer?

1 week — 12% 2 weeks — 36%
3 weeks — 20% 1 month — 32%

Opinion about the length of time required to make a decision varies widely. Students who receive offers early during the interviewing period will want to wait at least a month to see what else appears. Others receiving late offers will naturally reach a decision more quickly. We endeavour to make the interviewing season as short as possible to eliminate this confusion.

Should Government Give Aid to Industry

Asking this question at the 25th annual meeting of the Canadian Chamber of Commerce at Halifax on October 5, *H. H. Rogge,* President of Canadian Westinghouse, said:

"In the electrical industry, which I know best, foreign competition is of two quite different types. One type is the competition from the United States in mass-produced goods, such as refrigerators. Of all the electric refrigerators purchased by Canadians in 1953, over 40% were imported from the United States.

"The second kind of competition comes not from the United States, but from the United Kingdom and the countries of Europe, including especially Switzerland, Sweden and West Germany. In the period from 1950 to 1953 the percentage share of the Canadian heavy equipment market represented by imports from the United States increased 17.9%. But, in the same period, imports from the United Kingdom rose 167.5%, and imports from other areas, mostly Western Europe, rose 212%.

"In 1952 average hourly earnings in the electrical manufacturing industry were as follows, including wage supplements:

United States	$1.87
Canada	1.50
Belgium	.62
France	.58
United Kingdom	.53
Switzerland	.45
Germany	.41
Netherlands	.39

"Well, what should be done?

"For one thing, I do not wish to suggest in any way that world trade should be curtailed. Indeed, it must be stimulated, and decidedly so, if Canada is to maintain her sound international financial position. The question which needs immediate attention is how to promote this free trade and, at the same time, protect our own manufacturing institutions."

Should Government Give Aid to Industry

Answering the question to the Montreal Board of Trade, also on October 5, *Minister of Trade and Commerce C. D. Howe* said:

"Many of our manufacturing firms have been able to meet competitive prices from abroad with reasonable success. Still other companies have found ways of adjusting to the new conditions. There are, I think, many instances where Canadian firms have curtailed their manufacturing operations to include only products which can be competitively produced here and have supplemented this list with low priced imports. This expedient admittedly reduces the volume of Canadian manufactures and employment in certain of these industries. This, however, does not pose too serious a problem in a country where ample business and employment opportunities exist in other fields. On the other hand, for those firms which cannot bring their operations into line with the new competitive position, the process of adjustment is a difficult and distressing one.

"It is, I suppose, natural that these conditions should bring renewed proposals for additional protection of one kind or another against imports. It is frequently argued, for example, that Canadian industries should not be expected to compete with producers in foreign countries where wage rates are but a fraction of those paid in Canada. This argument disregards the underlying principle upon which international trade is based. It should be remembered that international differences in wages and other costs have not appeared overnight but have been evolving for decades. The relatively high incomes enjoyed by Canadians are the results of the effective utilization of an unusually rich inheritance of natural resources. Countries with less natural advantages can compete only if they accept lower incomes. In other words, low cost labour is to the industrial nations of Europe and Asia what natural resources are to Canada. It is the utilization of this low cost labour for the production of manufactured goods for sale in foreign markets which enables these countries to purchase the food and raw materials that form the bulk of Canada's staple exports. It follows, that if we in Canada and those in other countries similarly situated wish to follow a policy of restriction on the entry of foreign goods, then we must also be prepared to face the loss of markets for our traditional exportable surpluses. Such a policy in the long run would lead to the concentration of resources in less productive industries. A country with Canada's unique resources can ill afford to forego the advantages to be gained from the international specialization of production . . .

"While the General Agreement on Tariffs and Trade is international in its structure, it constitutes a direct expression of Canadian trade policy. Our trade policies in turn are formulated in direct response to our national interests and our national requirements. From this point of view, it is clear that our Government has no real alternative but to participate wholeheartedly in GATT. This Agreement constitutes the most practical machinery that has yet been developed for the formulation of trade rules and for the negotiation of difficulties when they arise. We are on the threshold of new opportunities to promote world trade and to promote our own trade. We shall certainly take full advantage of any such opportunities which arise, and we shall certainly continue to base our trade policies on a realistic view of our own national interests."

Staff College at C.N.R.

R. G. Chestnut

The Canadian National Railways has about 1,100 positions which may be classed at the level of junior executive and above. The problem of picking the best talent for these positions from an organization such as the Canadian National Railways, which operates from coast to coast along 24,000 route miles of railway and which employs 130,000 persons, is a difficult and complex task. This problem is aggravated by the fact that 800 of the persons filling these 1,100 positions are due to retire within the next 15 years. The Management of the C.N.R. has given a very high priority to developing a programme whereby the selection and training of future candidates for the 1,100 positions, will, as much as possible, be based on modern principles of executive development. This article, based on an address by R. G. Chestnut to the Institute of Public Administration, at Ottawa, September 11, 1954, describes the method by which the C.N.R. management hopes to solve its problems.

BACK in 1923, the year when the Canadian National System was formed, the Federal Government found itself with a group of bankrupt independent railway properties on its hands. In their years of operations these railways had become such an essential part of the economic life of the territories they served that it was necessary that their services be maintained. To do this it was decided that the formerly privately-owned railways should be amalgamated with the old Canadian Government railways into one system.

The new C.N.R. System was set up to function essentially on a private enterprise basis. Practically the whole of the staffs of each of the old organizations was brought into the new system, with the result that there were several people qualified to fill many of the senior supervisory positions, and as the first incumbents in these positions under the new organization dropped out, there were always other trained persons readily available to step into the vacated positions. Hence, there was no need for any recruiting. Then within six or seven years came the depression when the total staff of the system was decreased from about 108,000 to 70,000 — and still there were more than enough qualified personnel available to fill the senior supervisory ranks.

The recovery from the depression was not fast, and even as World War II started, the total number of employees in the System was just slightly over 78,000. During all this period no recruiting was done,

and little, if any, thought given to a plan to develop senior executive personnel. The rules of seniority were fully applied, and most men could recite the line of succession stretching before them for many years. During the war years, of course, it was impossible to recruit personnel of senior supervisory caliber into the railway, and many of the promising young men in the System left to serve in the Armed Services.

Immediately following the war, Management's attention was wholly directed to the rehabilitation of men returning from the Armed Services, and to the rehabilitation of its physical plant which had been sorely taxed during the war when it was impossible to keep maintenance up to the usual standard. It was not until 1948 or 1949 that Management was able to take a look at itself and when it did, it became aware that some thinking had to be done about planning for the future requirements in the senior ranks.

Personnel Development and Training

When Mr. Donald Gordon became Chairman and President of the Railways in 1950, a fresh appraisal was made of the whole personnel situation, and personnel development received top priority. And so it came about that in 1952 the Management of the C.N.R. first came to real grips with the problem of developing adequate replacements for senior supervisory ranks.

During the very first discussions of the problem, it was found that even among senior officers there was quite a variety of opinion as to what was meant by management development and it was generally defined in terms of the requirements of a particular department. Therefore we found that we had first of all to define clearly the aim and scope of the proposed training plan and the administrative level to which it would be directed. Our aim could be stated: "To train railway officers in the principles and techniques of modern industrial management and to investigate their application to the railway organization as a whole." It is to be emphasized that we were not concerned with training in railway techniques, but in modern management philosophy and its application. Technical training, we decided, was something which should be covered in earlier stages of an overall training plan. Therefore, candidates for the new management training programme would be individuals who were already thoroughly competent in the purely technical aspects of their work.

After having more or less decided what we wanted to do, our next concern, of course, was how to go about doing it. First of all, we looked around to see what others were doing, particularly other railroads. We found that on the whole not too much was being done, particularly of the order which we had in mind. It is true that it is not uncommon in North America to find industry associations and individual

companies that have set up schools and courses to give training to potential executives. However, the training given is generally fairly specialized and designed to give training in separate phases of the company's or industry's operations, and therefore orientated rather more to the technical than we desired. The most common form of executive training takes the form of a careful screening of younger employees for those giving promise of executive potential, and through posting those selected to a series of positions in various departments of the company where they will gain experience and knowledge of all phases of the business through on-the-job training. Also certain companies make a practice of sending young men of executive promise to courses offered by commerce or business departments of universities. The outstanding example of this type of course in Canada is the "Management Training Course" offered each summer by the University of Western Ontario, which is open only to company-sponsored candidates.

The U.K. and Canadian Staff Colleges

In the United Kingdom there has been some experimentation with an executive development college, namely, the Administrative Staff College at Henley-on-Thames. It is maintained by contributions from a number of industries which can nominate candidates to attend the College. The course given is a broad one, which covers a wide review of organizational and administrative problems of industry, commerce, government and trade unions. This course seemed to come closer to what we had in mind than anything else we found.

From the start of our investigation this phrase "staff college" seemed to keep coming to the fore. It was something many of us had heard about from associations with the military services, and we had an idea that it did for the Armed Forces in the training of officers what we wished to have done for us in the training of management personnel. It was therefore decided that it would be well for us to get some first-hand information about a "staff college" from those who operated one. Accordingly, arrangements were made for a visit to the Canadian Army Staff College at Kingston, Ontario. There we found the officers in charge very cooperative and pleased to give us all the information we wished about their institution.

Briefly, this is what we learned. The staff college is an institution which has been developed by the military services for the advanced training of officers to enable them to fit into all phases of military staff work, both in field and headquarters formations. In the Army the staff college has been developed to the point where successful completion of the course offered is a pre-requisite, with a few special exemptions, for all officers advancing to appointments with the rank of major and above. At the Canadian Army Staff College the student is given a very broad and intensive course which is designed:

(a) to give him a sound knowledge of military organization and its functioning.
(b) to develop his ability to think logically and quickly and express himself clearly both orally and in writing.
(c) to broaden his outlook on service, domestic and world affairs.

The staff college gives the senior military authorities an excellent instrument for assessing, on an equal basis, the capabilities and fitness of officers for more senior and responsible appointments. Or, in industrial terms, it trains the junior executive in techniques and considerations involved in more senior executive positions and gives the top management a scale whereby it can measure the relative merits of those being considered for advancement.

Why Not A C.N.R. Staff College?

This seemed to be just about what we were looking for as a model, for a comparison of the C.N.R. and Army organizations shows that in many respects there is a great deal of similarity. The result is that the problem of finding and training the best talent for senior executive positions in both is comparable. The Army, as the Railway, is highly departmentalized into a number of branches that have completely distinct and specialized functions. In both cases a person starting in at the bottom in any branch can work in a highly specialized field up to a fairly high executive level without having to be too aware of what is going on in other sections of the organization. However, there comes the time when the rising officer has to begin to tie in his branch of the organization with the whole. He, of course, cannot do this effectively unless he has an understanding of the functioning of the other branches. From this level the officer becomes more and more concerned with the operation as a whole, and quite likely will have to lead a section of the organization made up from portions of the various branches. At this point the successful officer is the one who can see the whole of any problem from the point of view of the whole organization and not merely from the more narrow departmental limits. The function of the staff college is to train younger officers to see and handle problems from this whole point of view.

A staff college then—integrated into the C.N.R. organization, as the military staff college is in the Armed Services—looked as though it would provide the answer to our problem. And so we started out, on our own, with our ultimate goal being a residential staff college, through which all officers proceeding to higher levels of management would be required to pass.

The Course of Studies

Having decided the form our management development programme was to take, it then became necessary to decide on a course of study.

A suggested course of study was drawn up which consisted of three distinct parts:

PART I — designed to give all students a common background knowledge of the Railway, its place in the Canadian economy, and the regulatory framework within which it operates.

PART II — called the "Principles of Modern Industrial Management" would be designed to give the student an insight into modern management philosophy and its applications.

PART III — would cover the application of the material of Part II to railway conditions.

In addition, it was decided that throughout the whole course the students should be given instruction in oral and written expression.

Consideration was also given to the system of instruction and it was decided that the most practical method would be the "learn by doing" method, or case study system. This system has proven to be particularly effective in the teaching of business administration by a number of universities—notably Harvard and the University of Western Ontario. What might be called a variation of it is also used at the Canadian Army Staff College and the National Defense College.

First Steps in 1953

Having decided what we wanted to accomplish, and having drawn up a rough plan of how to do it, we had to put our plan into effect. A senior policy committee, consisting of the President and two Vice-Presidents, was established to give overall direction to the carrying out of the project. The senior committee appointed a working committee of three, later expanded to five, to investigate ways and means of achieving our ultimate goal.

The working committee was not long on the job before it fully realized that the immediate establishment of a full-time staff college was a pretty big bite on which we might well choke, so it was decided that we had better take a nibble on the first try. Therefore we set for our immediate objective, a trial course from which we would at least get some practical experience before starting off in a field that up to that point was completely foreign to Railway experience. We came to the question, then, of who were going to be the teachers. At this point it was decided that we had better look outside for expert assistance. We were familiar with the work the University of Western Ontario was doing in its summer "Management Training Course", which was aimed at the level we were interested in; also it was known that the University used the case method of instruction, which we felt would be admirably suited to our requirements. So we thought this was the place to go with our troubles.

From the moment of our initial approach, the University showed a great interest in our project and a desire to help. We finally worked out an arrangement whereby the University would work up and present Part II for us and give us direction in handling Part III. Part III, you may remember, was to cover the application of what was learned in Part II to railway problems. We therefore were required to work up a series of railway problems into case form suitable for teaching purposes. This case preparation was directed by a member of the University faculty and carried out by a member of our own staff who was familiar with the case method. Fortunately, through our faculty consultant we were also able to acquire a number of transportation cases which had been prepared by Harvard University. In the end we used about a 50-50 split between C.N.R. and Harvard cases. We also arranged for a course in English through the University's Department of English.

PART I was worked up by the working committee and the various subjects assigned to appropriate senior headquarters officers, all of whom showed a great willingness to co-operate in the programme. The topics covered in Part I, and the Officers who gave the lectures, are as follows:

Subject	*Lecturer*
Historical Background of the C.N. organization	Special Assistant to the President
Principles of Transportation	Vice-President, — Researcch and Development
Economics	Vice-President and General Counsel
The Regulatory Framework	Assistant Vice-President, Traffic
Railway Freight Rates, Traffic and Revenues	1) General Passenger Traffic Manager
Railway Passenger and Express Traffic	2) General Manager, Express
Personnel	Vice-President and Assistant Vice-President — Personnel
Corporate organization and Company Policies	1) Vice-President and Executive Assistant 2) Secretary

PART II—of the course was given by the Faculty of the School of Business Administration of the University of Western Ontario. The broad subject headings covered were:

Administrative Practices - - - (or how to get things done by working through people).

Controls - - - - - - - - - (or how to use figure data in improving management efficiency).

Financial Management - - - (analyzing and planning for the financial requirements of a business).

Production Management - - - (application of industrial engineering methods to certain management problems).

Marketing - - - - - - - - - (or sales management and business promotion).

PART III—was directed by a member of the Faculty of the University of Western Ontario, who received assistance in the preparation of subject material from several railway officers. This part of the course was devoted solely to studying the application of the material given in Part II to problems in the transportation industry.

The administration of the course as a whole was entrusted to a senior railway officer, who was given the title of "Co-ordinator". As to the physical arrangements, Part I was given in Montreal, Part II in London, where the students were housed in a residence of the University of Western Ontario, and Part III at Bishop's University, Lennoxville, Que., where the students again were housed in a University residence.

The classes and discussion periods were scheduled for morning, afternoon, and evening, 5½ days a week. A recreational period of about 3 hours was scheduled for every week-day afternoon. The universities put their recreational facilities at our disposal.

As the first course was definitely in the nature of a trial run, it was decided that the students should be selected on as broad a base as possible. This was done not only to observe the effect of the course on a wide variety of individuals, but also to sell the idea of a staff training course throughout all parts of the system and at all levels of management. Therefore, there were no rigid limits placed on age and educational qualifications. All departments were requested to send in nominations in numbers amounting to at least twice the number of students that could be handled. The result was that over 100 nominations were received from which 47 students were selected. The student body selected formed a representation from all departments, from all sections of Canada and parts of the U.S.A. served by our lines, varying in age from 33 to 59, and in salary from about $500 per month to $1200 per month. Educational background varied from a mere public school graduation to near the Ph.D. level.

In terms of student acceptance and enthusiasm, the course was an unqualified success. In terms of educational value, the course was not 100% effective, for although no attempt was made to appraise the students formally, it was quite clearly demonstrated that the course was too much for about one-sixth of the students. On the whole, it was concluded that the course was a definite success and therefore that we should take another step towards our goal of a full-time staff college.

The 1954 Course

In 1954 another course basically similar to the first one was held, but it contained a number of important changes. We engaged the services of a senior member of the faculty of the University of Western Ontario's School of Business Administration as academic consultant on a retainer basis, and the facilities of Bishop's University were reserved for the whole of the course. The major change from the first course was largely one of spirit, in that this year, selection of the students was on a much more restrictive basis and each student's performance on the course was formally appraised and an assessment made as to his suitability for promotion to more serious work. To be eligible each candidate was to have a formal educational background of at least junior matriculation or its equivalent, his salary was not to be less than $500 per month—or at least he was to be slated for promotion to a position carrying that salary in the near future, and he was not to be over 45 years of age, unless it could be shown that he was one for whom the course would be of particular benefit. The final selection of students was made by a selection board which appraised each candidate on the basis of a personal interview. The appraisal of each student's performance on the course on the basis of his class work and written assignments, was made by the author and the teaching staff.

Under our student selection procedure, departments were asked to nominate candidates in accordance with the qualifications mentioned to give us a total of about 100, from whom 50 students were selected. The selection board was made up of three permanent members and one temporary member. The permanent members were the author, a senior operating officer, and a member of the Personnel Department; the temporary member's position was filled by a senior member of the candidate's own department. The board held its interviews with candidates at a number of the main centers of the System. Each candidate was given an interview lasting about 50 minutes during which he was asked to discuss a wide variety of questions which were aimed to bring out his intellectual and personal development in a sufficient degree to enable the board to make an educated guess as to his capacity to handle the course of study. After the conclusion of the interview the candidate was asked to withdraw and each board member made an individual appraisal of the man in respect of six separate factors set forth on an appraisal scoring form. The six factors were:

1. Physical Qualities.
2. Facility of Expression.
3. Intellectual Qualities.
4. Interests
5. Personality
6. General Impression.

The appraisals of each of the board members were then compared and differences of opinion reconciled and a final scoring prepared giving the unanimous appraisal of the board. By and large the final selection was based on the appraisal score, although some slight deviation from this principle was made to provide for adequate departmental representation.

At the time the prospective student was notified of his selection, he was provided with a kit of reading material with which he was expected to become familiar before he arrived on the course. The material had been selected so that it would start him thinking in the broad terms of the course before it commenced. The kit contents included copies of the following:

1. Royal Commission Report on Transportation in Canada (1951).
2. Canadian National Annual Report for 1953.
3. The most recent "Proceedings of the House of Commons Committee on Railways and Shipping owned, operated, and controlled by the Government".
4. "Management and Morale"—by F. J. Roethlisberger.

The last-mentioned item is a small text of about 200 pages dealing with human relations in industry. Each student was required to submit a critical review of this book on arrival at Lennoxville.

The course of study itself was more or less identical to that in 1953, although in 1954 the material of Part I was given over the entire period of the course instead of all in the first week. It was apparent from our experience in 1953 that much of the material of Part I would have a greater impact and be more comprehensible after exposure to some of the case studies. We also broadened the English Course to include instruction in public speaking.

The teaching staff consisted mainly of members of the faculty of the University of Western Ontario, plus a professor from Harvard's School of Business Administration. In addition several of our own officers gave instruction in teaching by the case method in the "railway administration" part of the course.

Student and Course Appraisal

An innovation to the 1954 Staff Training Course was formal student appraisal. As no written examinations were held, the appraisal of the students had to be based mainly on a close observation of all phases of their performance in group discussion and classroom work, supplemented by the grading of written reports and exercises assigned in certain of the subjects. On the whole, it is felt that quite an accurate appraisal was obtained of each student's performance. Each student was informed of the results of his appraisal in a private interview at the end of the course.

If intensity of application on the part of the students to their work, a high level of interest in every phase of the course of studies, and a marked esprit de corps, can be taken as criteria, the 1954 Staff Training Course was most successful. Judging from comments received during interviews with the students at the close of the course and from the written critiques which they have since turned in, it appears that the chief benefits derived by the students are as follows:

1. A considerably broadened outlook on the affairs of the C.N. System as a whole.
2. An insight into the principles of modern business administration.
3. Stimulated thinking and interest in self-improvement through further study.
4. Recognition of the need to apply analytical thinking to the solution of their daily problems.
5. The importance of developing their powers of communication, both in oral and written expression.
6. Awareness of the individual officer's responsibility in respect of the financial result of the System's operations.

It is difficult to assess accurately the educational value of the Course to each student, but had a set of written examinations been held at the close of the Course, a passing grade or better would have been achieved by all except two or three of the fifty students. This is considered to be a good result and testifies to the effectiveness of the selection procedure introduced in this year's programme. Apart from the educational value of the Course it would seem that it could be justified in terms of the increased morale of the officers attending. Not one student officer returned to his regular work without having his opinion of the Canadian National organization raised to a considerable extent.

Computers Revolution

"Electronic computers are likely to bring about a revolution in office and factory through their ability to do what now takes several steps in one continuous process", Sir Ben Lockspeiser told the Institute of Directors.

According to the London Economist, full scale computers performing such feats of calculation, memory and control, cost around $300,000 and the number of mathematicians trained to use them is limited.

So that small businesses may also benefit, computer owners in Britain sell computer time. Ferranti, in addition, plans to set up in London (England) next summer a computer centre to give managements a means of testing how much electronic accounting and production control can cut their costs.

Book Reviews

THE ATTACK ON BIG BUSINESS

by J. B. Glover, Division of Research, Harvard Graduate School of Business Administration, 1954. 375 pp. $4.00.

The author begins his preface with the statement, "Within the allotted span of human life America has gone through a revolution". To this revolution he attaches the label, "Big Business Revolution". It started during the hey-day of Matthew Josephson's "Robber Barons" and has continued through the reign of Frederick Lewis Allen's "Lords of Creation" down to the present.

Almost fifty years have passed since the trust-busting or muck-raking era of the early years of this century sounded the death knell of the "Robber Barons" and twenty-five years have passed since the notorious "Corrective Downward Adjustment" took place on the stock exchanges of the world, shattering the dreams of the "Lords of Creation". However, despite its accomplishments in getting things done (for example the construction of the "Arsenal of Democracy") "Big Business" is still under almost constant attack.

Professor Glover's mission, according to Professor E. P. Learned, who wrote the foreword, was to examine the literature of the attack, to discern any pattern there might be and then to summarize the attack. The author says, "I have tried to see and convey what the criticism adds up to and *especially what it means for the administrator of Big Business.*

The book is divided into four parts, the first three of which are entitled "The Economic Attack on Big Business", "The Political and Social Criticism of Big Business", and "The Ethical and Moral Criticism of the Civilization of Big Business", in that order. The fourth part contains the author's interpretation and evaluation of the criticism and his conclusions as to its significance for businessmen.

One of the first problems faced in analyzing the great mass of materials studied was to try and define the target of the attack. A precise definition of what it is that the critics are opposed to is not so simple as it may appear. After listing and considering many of the terms encountered in his study, the author says, "Essentially it seems to me, the common bond among the critics is their opposition to departures from some sort of an ideal way of things in which economic life, political life, and social life is based upon independent, unorganized, unrelated, and even isolated individuals".

The chapter headings from the first three parts of the book present a vivid summary of the criticisms: Big Business is Inefficient; Big Business is Monopolistic; Big Business Runs the Country; Big Business is Incompatible with the Economic Basis of Democracy; Big Business is Incompatible with the Social Basis of Democracy; Excessive Materialism; Irresponsible Individualism; The Painful Inhuman Civilization of Big Business.

Much of the criticism is obviously a reflection of distrust and fear as well as dislike. A great deal of it stems from lack of understanding and careless assumptions. At the same time it must be admitted that some critics have been helpful. Much of our indispensable legislation of today exists as a result of the efforts of the critic of yesterday. Surely the outcry as a result of the crash of 1929 was criticism, and surely it was largely responsible for the radical legislation of the following few years.

In Canada we have watched the "Attack on Big Business" for generations. It has taken place within our boundaries although not on such a noisy scale as across the border. Within the last two years one of our large corporations has been split as the result of the attack on Big Business in a foreign country. Do we agree that the split was just? Do we understand why we believe it just or unjust? What do we really know about "Big Business"?

In the last chapter, "Prescription for Action", Professor Glover makes two suggestions under the heading "Towards Better Understanding of Big Business". They are not new, but coming at the end of his analysis of the attack on Big Business they are indeed challenging — to Big Business! His suggestions are: "Big Business" should contribute to the financing of painstaking studies by social scientists into the nature and functioning of large corporations, and Big Business should make many opportunities available to educators and others to come into their organizations to see for themselves what a big business really looks like, and how it really works.

The author has performed an important task in summarizing the attack on Big Business. Critics, onlookers and Big Business itself should all benefit from examining the arguments he has collected and from contemplating the interpretation, evaluations and conclusions he has prepared.

—James C. Taylor
Professor
U.W.O. School of Business Administration

PROSPECT OF CANADA

by Ernest Watkins. British Book Service (Canada) Ltd., Toronto, Ontario. 271 pp. $4.25.

This book is written primarily to introduce Canada to British readers. As such it is far better than any prospectus prepared by the government public relations expert, unhampered by the regulations of the Companies Act. But this book is also recommended to Canadian readers. It is very healthy for one's ego to see how others see us.

Ernest Watkins needs no introduction to Canadian radio listeners. His almost daily commentary on the B.B.C. news brought to Canadians by the C.B.C. Trans-Canada network has made his voice a welcome visitor in Canadian homes. In 1953 he followed in person on an extended visit to Canada, and based on this and obviously extensive reading he has written a book, admirably suited as an introduction to all arriving in Canada. It might well be made compulsory reading in any course of Canadian citizenship. Like so many visitors, author Watkins saw far more of Canada than do most Canadians. They should let him introduce their other provinces.

Obviously many Canadians will criticise the author's selection and emphasis. It is, possibly, going a little far, however much one dislikes Toronto, to leave it off a map of Canada, which includes Stratford, Niagara Falls, St. Boniface (Manitoba) and Rossland (B.C.). It is interesting to read that "London is a university town of 100,000 people where all the learned societies of Canada hold their annual meetings in almost continual succession for two weeks in June each year", that Lord Beaverbrook was born in New Brunswick. But these are minor errors, easily remedied in later editions. Inevitably, in a hasty trans-Canada trip, every place cannot be mentioned. The National Film Board's "Royal Journey" incurred displeasure too on that account.

But author Watkins analyses brilliantly the threads in the "chain of 10 provinces slung like a necklace above the opulent figure of the United States" — the immaterial links, the C.B.C. and N.F.B., and the material links, the railways and airlines. As an assistant editor of the Economist, he is well qualified to write on Canada's economics of prosperity and also the present day problems, wheat, monopolies and the St. Lawrence Seaway. As an experienced political commentator, his concluding chapters on Canadian politics, people and external relations are frank and stimulating.

Many, obviously, will disagree that "if the French-speaking Canadians had not existed, it is likely that Canada today would have been much closer to the Americans than she already is, that there might well have been so complete a political tie between the two countries that Canada would have ceased to be a separate nation for all external pur-

poses. She would have become, politically, another Mexico". Admirers of Mackenzie King may not agree that "Mackenzie King certainly built up the machine, an External Relations Department, by which he might be informed. Informed, he kept his oars within the boat". No one, however, will disagree that "it is fortunate that the guardians of this great storehouse of resources and power in the North American continent should be sober and intelligent people, not given to bursts of impatient emotion, cautious and resilient. What an opportunity they have to think for the world!"

—A. Gordon Huson
Associate Professor
U.W.O. School of Business Administration

MUNICIPAL LABOUR RELATIONS IN CANADA

by S. F. Frankel and R. C. Pratt. Canadian Federation of Mayors and Municipalities. 90 pp. $2.50.

Under the guidance of the Industrial Relations Centre of McGill University, S. J. Frankel and R. C. Pratt have undertaken a study of some of the problems arising out of the impact of collective bargaining upon municipal administrators and municipal trade unionists. The authors do not claim to have conducted an exhaustive research into each aspect of the overall problem, but they have made a significant contribution to the understanding of the problems of collective bargaining in the municipal services.

Trade unionism in the municipal field has made substantial gains. Nearly 40,000 employees now bargain collectively with their municipal employers. Although municipalities experience many of the same problems in collective bargaining as does private industry, there are additional complications. Who will act as representatives at the bargaining table (the whole council, a committee, a permanent administrator, or a joint committee)? What constitutes an essential service? What about the political nature of the employer and his responsibilities to the public? The essential nature of some categories of municipal services, e.g., policemen and firemen, raises a question of the right to strike. If this is denied, can the dispute be settled by compulsory arbitration? Where can we get trained arbitrators? What effect will arbitration have on negotiations? Will effective collective bargaining tend to disappear? To answer these and other questions, the authors draw heavily upon Canadian experience. There is also a section on the legal framework of municipal labour relations, which is a summary of current labour relations as it applies to the municipal field. While the authors do not recommend any basic changes, they do present some technical suggestions towards

improving the clarity and precision of present laws, of great interest to all engaged in formulating and administering harmonious labour relations in municipalities as well as to citizens interested in the problems facing their local governments. The authors had to put aside many other questions which warrant further investigation. The development and role of the joint committee and the activities of unions and ratepayers' associations as pressure groups were two subjects which would yield interesting results. Maybe the Canadian Federation of Mayors and Municipalities and the Industrial Relations Centre at McGill University will enable these men to follow up this excellent beginning.

WAGES IN QUEBEC AND ONTARIO

by Gilles Beausoleil. C.C.L. and C.C.C.L. 50 pp.

Working under the direction of Dr. Eugene Forsey, Director of Research for the Canadian Congress of Labour, Mr. Beausoleil bases much of his analysis upon data secured from the Dominion Bureau of Statistics. His study is confined to a comparative analysis of average hourly earnings, 1946-1953 in manufacturing, metal mining, construction and services which, as the author points out, "employ the majority of workers anyway". Mr. Beausoleil concludes that the disparity in hourly earnings is serious, but does not offer a specific solution. He states:

> "Unions could establish as a basic principle in negotiations the equality of wages with Ontario, and use means of reaching that objective, such as inter-union collaboration and firmness in bargaining. Even then, the goal will not be rapidly attained. It remains obvious that the rather arduous task of having to fill the gap will have to be faced by unions in a probably less favourable set of economic circumstances during the next few years."

—John J. Wettlaufer
Assistant Professor
U.W.O. School of Business Administration

INTRODUCTION TO INTERNATIONAL ECONOMICS

by Delbert A. Snider, PhD. Richard D. Irwin, Inc., Homewood, Illinois, 1954. 472 pp. $6.00.

If the number of new books published on international trade is any index of student interest in the subject, we are due for a wave of foreign trade experts in the years ahead. However, Dr. Delbert Snider's book

is welcome indeed. He successfully points up the greatest single problem in teaching international economics, that while the subject is necessarily taught as at least an intermediate course in economics a large proportion of its students have little or no economic background. To overcome this difficulty, some teachers adopt an historical approach. Not so Dr. Snider, who has struck a balance between theoretical analysis and factual description of existing conditions and used such a lucid style that all will welcome his contribution, free as it is from calculus and geometry.

Furthermore, he has attempted to bring into focus the conflict between the theory of free international trade and the individual national struggles for domestic stability. After the first four parts of his book deal respectively with the theory and empirical foundations of international trade, the problem of international disequilibrium, the process of balance-of-payments adjustment and public and private barriers to trade, Part V is entitled the search for economic stability and growth through international co-operation.

—A. Gordon Huson
Associate Professor
U.W.O. School of Business Administration

THE MEANING OF WORK AND RETIREMENT

by Eugene A. Friedmann and Robert J. Havighurst. The University of Chicago Press, 1954. pp. 197.

This book is a report on several research projects for the purpose of determining the meaning of work and retirement and especially for the discovery of the precise relationship between the meaning of work and the attitude toward retirement among the older workers, passed 55, either working or retired. Such information, according to the authors, "should lay a partial basis for a retirement policy that is both satisfactory to the individual and wise for the general welfare".

The point of view and the method of approach is social-psychological, in conformity with the present trends in social psychology and functional anthropology. The fundamental postulate appears to be that of cultural determinism: "The job or work activity can be regarded as an axis along which the worker's pattern of life is organized." The questionnaire, interview, and sampling techniques were employed in securing data from individuals among steel workers, soft coal miners, retail sales-people, printers, and physicians.

The conceptual frame of reference within which research was conducted comprised only the positive functions of work and correspon-

ding meanings, such as earning a living, maintaining status in the group, achieving recognition or respect from others, establishing friendship relations, finding purpose in life, means of self-expression; finding new experience, rendering service to others. The negative meanings of work had been omitted from the list of categories tested.

The following hypotheses, which guided the research procedure, and which showed the relation between the meaning of work and the attitude toward retirement, were confirmed by the findings, namely, that "(1) Work has recognized meanings in addition to that of earning a living. (2) Those persons who regard work as primarily a way of earning a living will prefer to retire at age 65. (3) Those persons who stress values of work other than that of earning a living will prefer to continue working past age 65. (4) The extra-economic meanings of work are stressed to a greater extent by members of the higher skilled occupational groups."

The results of the investigation were summarized in terms of percentages of those who wanted to continue working past the age of 65, viz.: 32% of the unskilled and semi-skilled steel workers; 65% of the department-store sales-people, and 67% of the physicians.

Apparently, according to the authors, there is no problem in case of those workers who do not find extra-economic values in their occupation, and who retire voluntarily or at the mandatory age of 65. The people of the United States are living in the economy of abundance. Old age benefits, both private and public, and Social Security provisions will provide three out of four people with an adequate base in regard to those older workers who find intrinsic value and satisfaction in their work, are willing to work, but are barred from employment. The remedy apparently, resides in the further expansion of the flexible retirement plans, enabling some workers to continue on their jobs as long as they are productive, and willing to work. This plan is especially applicable to skilled workers and professional people, since the extra-economic values or meanings of their work are related to retirement.

The authors maintain that the problems of adjustment to retirement consists primarily in finding satisfactory substitutes for the life-meanings and satisfactions which people find in their work. These values can be secured in retirement through play and leisure time activities. In the economy of abundance as that of the United States, leisure time activities can supply the extra-economic meanings and values which work had been supplying to people in the economy of scarcity. An individual with a work-centered pattern of mind is an antediluvian. In our culture "a point has been reached where the old dichotomy of work and play has become meaningless . . ., "The extra-economic meanings of work can nearly all be discovered and realized more fully in leisure time activities. Hence, we may state the principle of *equivalence of work and*

play. In our economy of abundance, where work is reduced in quantity and burdensomeness to a level where it is not physically unpleasant, many of the values of play can be achieved through work, and work through play."

As to the appraisal of the book: the samples selected are not representative of the various occupations in the country as a whole. The attitudes of workers toward their jobs are not constant but highly variable, depending upon multiplicity of factors; they are primarily ambivalent. The verbal and questionnaire responses are subject to various interpretations depending upon the interpreter's point of view. The social aspects of work appear to be overemphasized. Personal associations of workers on the job are stereotyped task-mediated relationships which are devoid of sociability. The principle of "the identity of work and play" does not apply to modern technology and the machine process of production in which the workers' interest in their jobs has to be stimulated by such expedients as personnel management, piece rates, bonus systems, profit sharing, stock ownership, thrift and insurance devices, etc. The euphemism "economy of abundance" is a deceptive expedient for distracting public attention from the gross inequalities of income distribution and the imperfections in the price mechanism. No practical knowledge of any significance can be gained from sample studies of individual attitudes toward work and retirement. The solution of the retirement problem depends upon employers, labour unions, and the government.

However, the hypotheses advanced in the book will probably serve in reinforcing the arguments in favour of flexible retirement plans, especially for the highly skilled trades and professions.

—C. J. Bittner

London, Ontario

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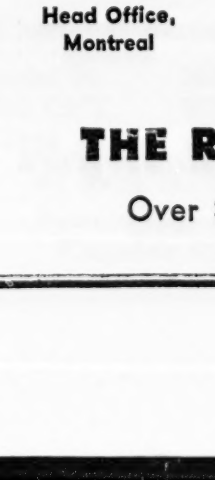

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